

## Repair Manual Golf Variant 2010 ➤

### Body Exterior

Edition 04.2023







## List of Workshop Manual Repair Groups

### Repair Group

- 50 - Body Front
- 55 - Hood, Lids
- 57 - Front Doors, Central Locking System
- 58 - Rear Doors
- 60 - Sunroof
- 63 - Bumpers
- 64 - Glass, Window Regulators
- 66 - Exterior Equipment

Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

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## 50 – Body Front

### 1 Lock Carrier

(Edition 04.2023)

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⇒ [“1.1 Tools”, page 1](#)

⇒ [“1.2 Lock Carrier - Attachments”, page 2](#)

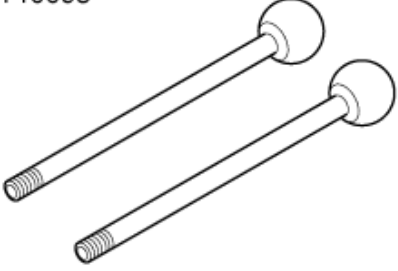


⇒ [“1.3 Service position”, page 4](#)

⇒ [“1.4 Lock Carrier with Attachments, Removing and Installing”, page 6](#)

⇒ [“1.5 Pressure Hose and Coupling”, page 8](#)

#### 1.1 Tools

Special tools and workshop  
equipment required

<p>T10093</p> 	<p>V.A.G 1331</p> 
<p>V.A.G 1332</p> 	
	<p>W50-10000</p>

- ◆ Guide Pins - T10093-
- ◆ Torque Wrench, 6-50Nm - VAG 1331A-





◆ Torque Wrench, 40-200Nm - V.A.G 1332A-

## 1.2 Lock Carrier - Attachments

⇒ ["1.2.1 Overview", page 2](#)

### 1.2.1 Overview







## 1 - Lock Carrier with Attachments

- ☐ Removing and Installing. Refer to ➤ ["1.4 Lock Carrier with Attachments, Removing and Installing", page 6](#).
- ☐ Service position. Refer to ➤ ["1.3 Service position", page 4](#).

## 2 - Cover

## 3 - Assembly Part

## 4 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 2 Nm

## 5 - Air Duct

## 6 - Bolt

- ☐ Quantity: 3 on each side
- ☐ Tightening specification: 8 Nm.

## 7 - Retaining Bracket

- ☐ Left

## 8 - Retaining Plate

- ☐ For the left headlamp

## 9 - Guide

- ☐ Left

## 10 - Bolt

- ☐ Quantity: 2 on each side
- ☐ Tightening specification: 5 Nm

## 11 - Air Duct

- ☐ Left

## 12 - Crossmember

- ☐ Crossmember, North America. Refer to ➤ ["1.5.2 Overview - North America", page 214](#).

## 13 - Bolt

- ☐ Quantity: 4 on each side
- ☐ Tightening specification: 60 Nm

## 14 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 8 Nm.

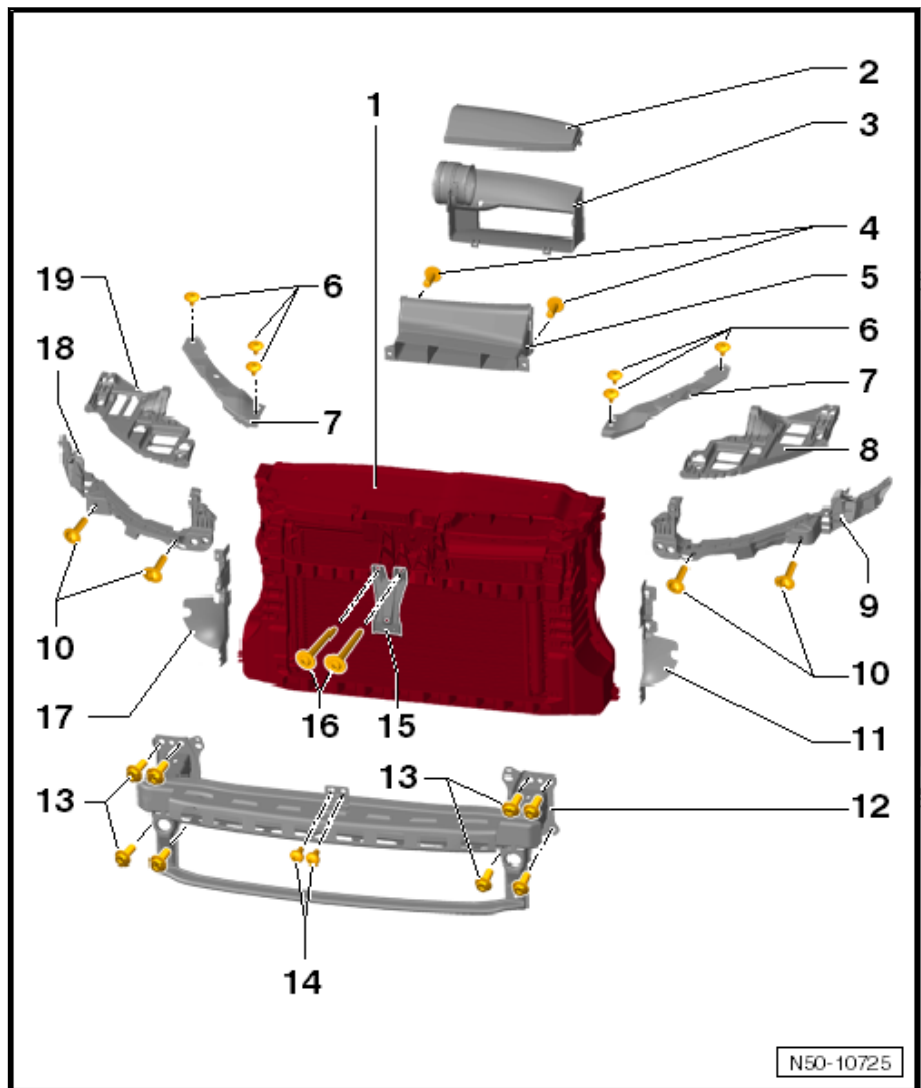
## 15 - Lock Carrier Support

## 16 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 12 Nm

## 17 - Air Duct

- ☐ Right



liability with respect to the correctness of information in this document





## 18 - Guide

- ☐ Right

## 19 - Retaining Plate

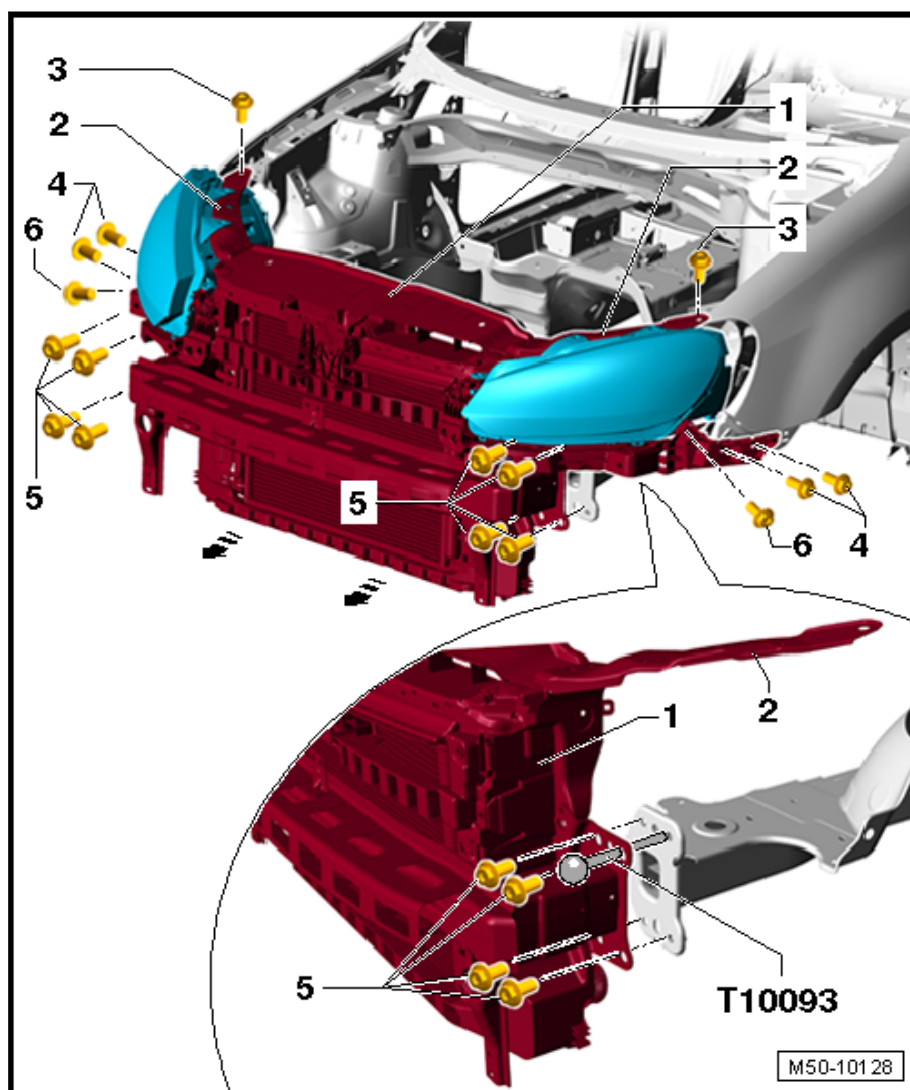
- ☐ For the right headlamp

### 1.3 Service position

⇒ ["1.3.1 Moving into Service Position", page 4](#)

⇒ ["1.3.2 Service Position, Resetting", page 5](#)

#### 1.3.1 Moving into Service Position



- Remove the front bumper cover. Refer to ⇒ ["1.4.2 Removing", page 208](#).
- Disconnect the cable on the lock carrier. Refer to ⇒ ["1.11 Release Cable, Disconnecting", page 48](#).
- If the vehicle has a charge air cooler, release the pressure hoses. Refer to ⇒ ["1.5.1 Coupling, Unlocking", page 8](#).
- Remove the screws -4- and -6- on the left and right guides.



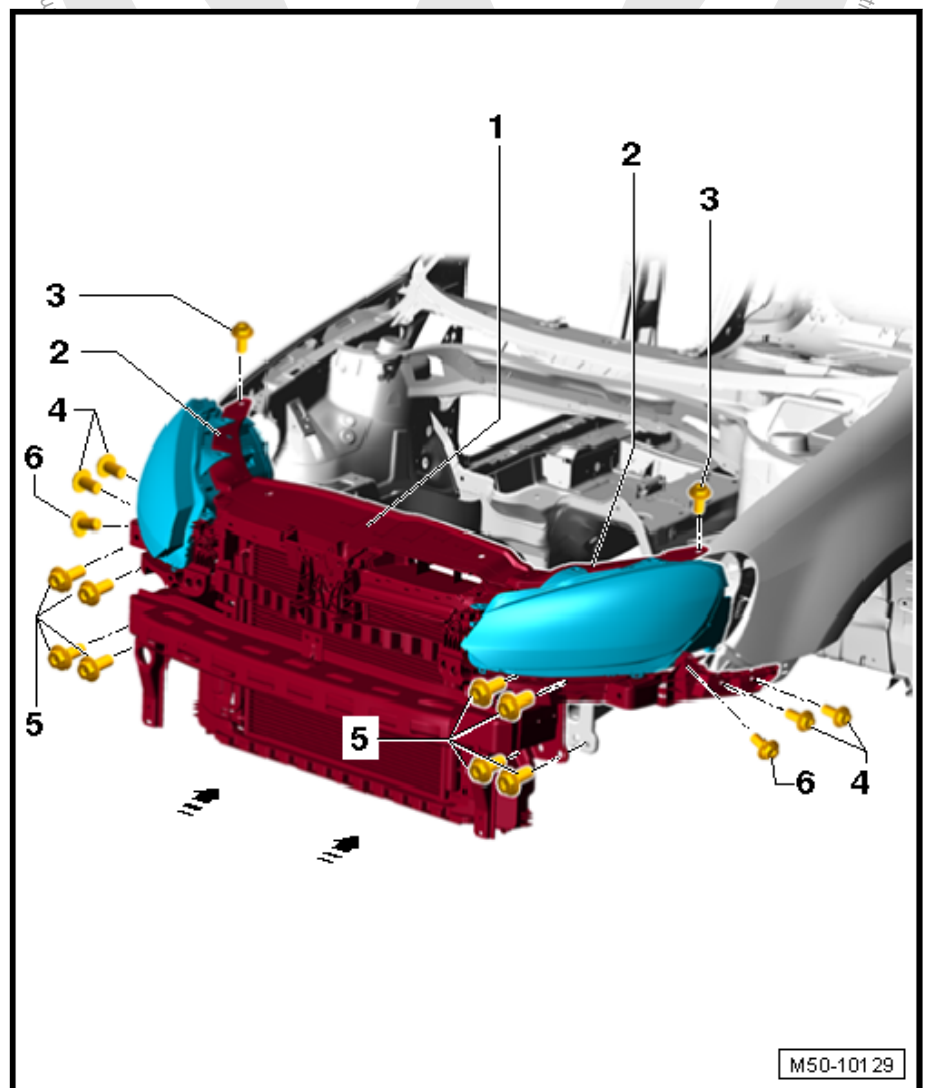


## Note

*The bolts are installed -6- from 06/2010.*

- Remove the bolts -5- at left and right longitudinal member.
- Install the Guide Pins - T10093- on the left and right longitudinal member.
- Remove the left and right upper bolts -3- on the retaining bracket -2-.
- The lock carrier with the attachments -1- can be pulled forward approximately 10 cm onto the Guide Pins - T10093- -arrows-.

### 1.3.2 Service Position, Resetting



Install in reverse order of removal.

- Align the lock carrier and the attachments -1- on the longitudinal members and between the fenders. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Panel Gap Dimensions; Body Front .





- Tighten the screws -3- on the retaining bracket -2-, tightening specification: 8 Nm.
- Bolt tightening specification -4- and -6- 2 Nm.
- Tightening specification for bolts -5-: 60 Nm



**Note**

*The bolts are installed -6- from 06/2010.*



**Note**

- ◆ *Make sure the charge air cooler pressure hoses are attached securely. Refer to ⇒ ["1.5.2 Coupling, Locking", page 8](#).*
- ◆ *The hoses and lines must not be pinched.*

## 1.4 Lock Carrier with Attachments, Removing and Installing

⇒ ["1.4.1 Removing", page 6](#)

⇒ ["1.4.2 Installing", page 8](#)

### 1.4.1 Removing



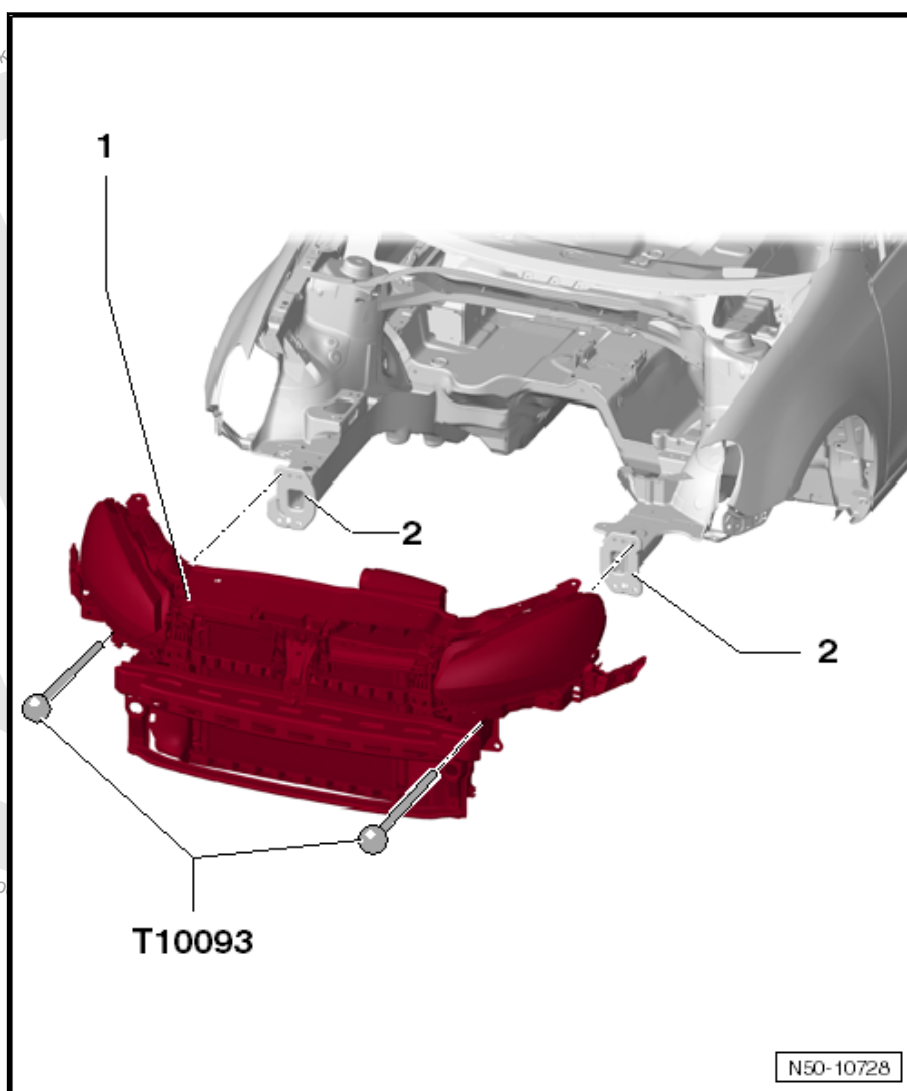
**Note**

- ◆ *The lock carrier is a safety related component. For this reason it may not be serviced.*
- ◆ *If damaged, replace the lock carrier.*





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- Bring into the service position. Refer to ⇒ [“1.3.1 Moving into Service Position”, page 4](#) .
- Disconnect any connectors present.
- Drain the coolant and disconnect the coolant lines. Refer to ⇒ Cooling System; Rep. Gr. 19 ; Cooling System Components, Removing and Installing, Coolant, Draining and Filling .
- Disconnect the lines on the condenser. Refer to ⇒ Heating and Air Conditioning; Rep. Gr. 87 ; Air Conditioning; Condenser, Removing and Installing .
- With the help of a second technician, turn the Guide Pins - T10093- on the left and right longitudinal member -2- and remove the lock carrier and attachments -1-.



#### WARNING

***Do not start the engine whenever the A/C system or coolant lines are disconnected.***





#### Note

- ◆ Never hang the condenser and the hydraulic fluid cooler on the lines.
- ◆ Never bend the condenser lines or the hydraulic lines.

## 1.4.2 Installing

- Bring out of the service position. Refer to ⇒ [“1.3.2 Service Position, Resetting”, page 5](#).

Perform the rest of the installation in the reverse order of removal.

- Make sure that all plug and hose connections are correctly installed when assembling.
- Align the lock carrier on the longitudinal members and between the fenders. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Panel Gap Dimensions; Body Front.

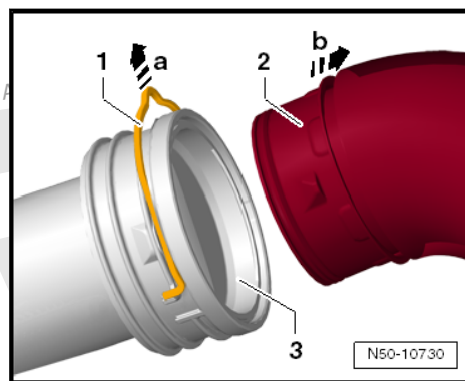
## 1.5 Pressure Hose and Coupling

⇒ [“1.5.1 Coupling, Unlocking”, page 8](#)

⇒ [“1.5.2 Coupling, Locking”, page 8](#)

### 1.5.1 Coupling, Unlocking

- Disengage the spring -1- in the -direction of arrow A-.
- Pull the pressure hose -2- in the -direction of arrow b- out of the coupling -3-.



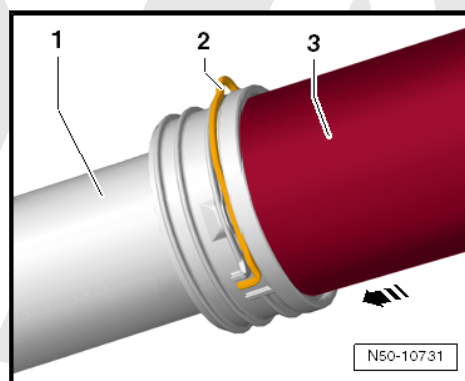
### 1.5.2 Coupling, Locking

- Make sure the clip -2- is in the upper position.
- Attach the pressure hose -3- into the coupling -1- in the -direction of arrow-.
- Push the clip -2- all the way through.



#### Note

- ◆ If the clip cannot be pushed all the way through, this means the pressure hose is not completely attached to the coupling.
- ◆ In this case, push the pressure hose onto the coupling one more time and then install the clip.
- Pull on the coupling to make sure it is secure.







## 2 Fender

⇒ [“2.1 Tools”, page 9](#)

⇒ [“2.2 Front Fender”, page 9](#)

⇒ [“2.3 Fender Insulation and Foam Pieces, Fillet Plate and A-Pillar”, page 13](#)

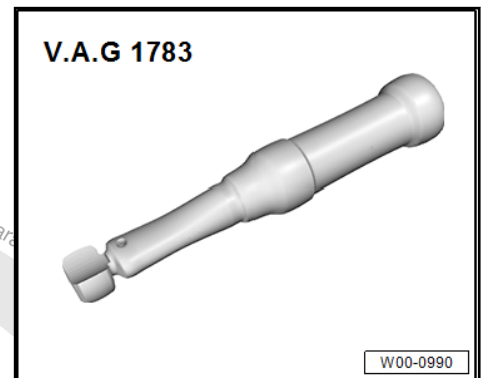
⇒ [“2.4 Fender End Piece”, page 13](#)

⇒ [“2.5 Fender Brace, Removing and Installing”, page 14](#)

### 2.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



### 2.2 Front Fender

⇒ [“2.2.1 Overview”, page 9](#)

⇒ [“2.2.2 Removing”, page 10](#)

⇒ [“2.2.3 Installing”, page 12](#)



**Note**

*The following describes the removal and installation of the left fender. Removing and installing the right fender is identical.*

#### 2.2.1 Overview



**Note**

*The illustration shows the left side. The right side is identical.*



## 1 - Fender

- ☐ Removing. Refer to ⇒ ["2.2.2 Removing", page 10](#).
- ☐ Installing. Refer to ⇒ ["2.2.3 Installing", page 12](#).

## 2 - Bolt

- ☐ Quantity: 9
- ☐ Tightening specification: 6 Nm

## 3 - Foam Piece

- ☐ Inserted between the fender and the upper wheel housing longitudinal member. Refer to ⇒ ["2.3 Fender Insulation and Foam Pieces, Fillet Plate and A-Pillar", page 13](#).

## 4 - Fender End Piece

- ☐ Removing and Installing. Refer to ⇒ ["2.4 Fender End Piece", page 13](#).

## 5 - Fillet Plate Insulation

- ☐ Installed in front of the fender fillet plate. Refer to ⇒ ["2.3 Fender Insulation and Foam Pieces, Fillet Plate and A-Pillar", page 13](#).

## 6 - Fender Brace

- ☐ Removing and Installing. Refer to ⇒ ["2.5 Fender Brace, Removing and Installing", page 14](#).

## 7 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 6 Nm

## 8 - Molded Foam Part

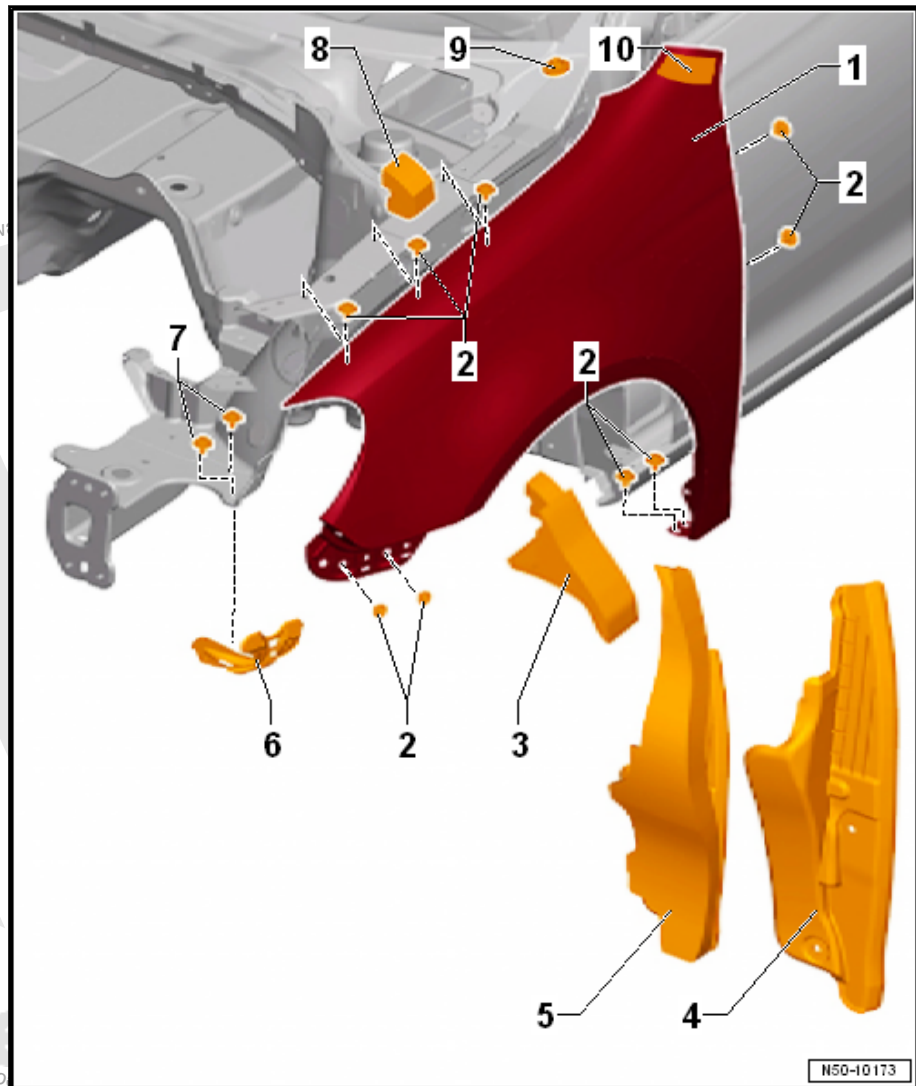
- ☐ On the upper wheel housing longitudinal member

## 9 - Nut

- ☐ Tightening specification: 6 Nm

## 10 - Adhesive Surface

- ☐ Not equipped on all vehicles



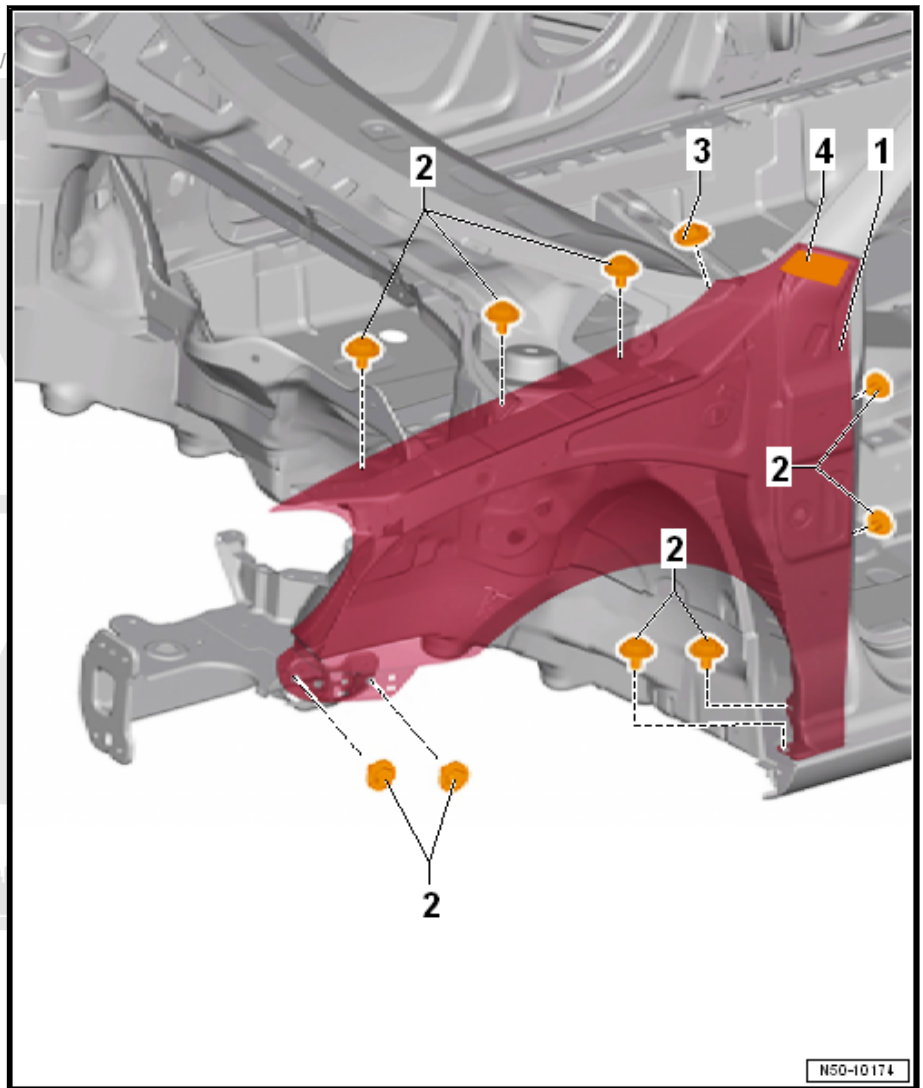
## 2.2.2 Removing



### Note

On some vehicles, an adhesive bead -4- is applied in the A-pillar area. Use a cutting wire to cut through this adhesive bead. Refer to ⇒ *Electronic Parts Catalog (ETKA)* for the allocation.





- Remove the front bumper. Refer to ➤ [“1.4.2 Removing”, page 208](#) .
- Remove the guide ➤ [Item 9 \(page 3\)](#) .
- Remove the front wheel housing liners. Refer to ➤ [“1.2.2 Removing”, page 278](#) .
- Remove the foam piece between the fender and the longitudinal member ➤ [Item 3 \(page 10\)](#) .
- Remove the fillet plate insulation from the wheel housing ➤ [Item 5 \(page 10\)](#) .
- Remove the fender end piece. Refer to ➤ [“2.4 Fender End Piece”, page 13](#) .
- Remove the screws -2-.
- Remove the nut -3-.
- If an adhesive bead -4- is present in the area between the fender and the A-pillar, then cut through this adhesive bead using a cutting wire.
- Carefully remove the fender -1-.



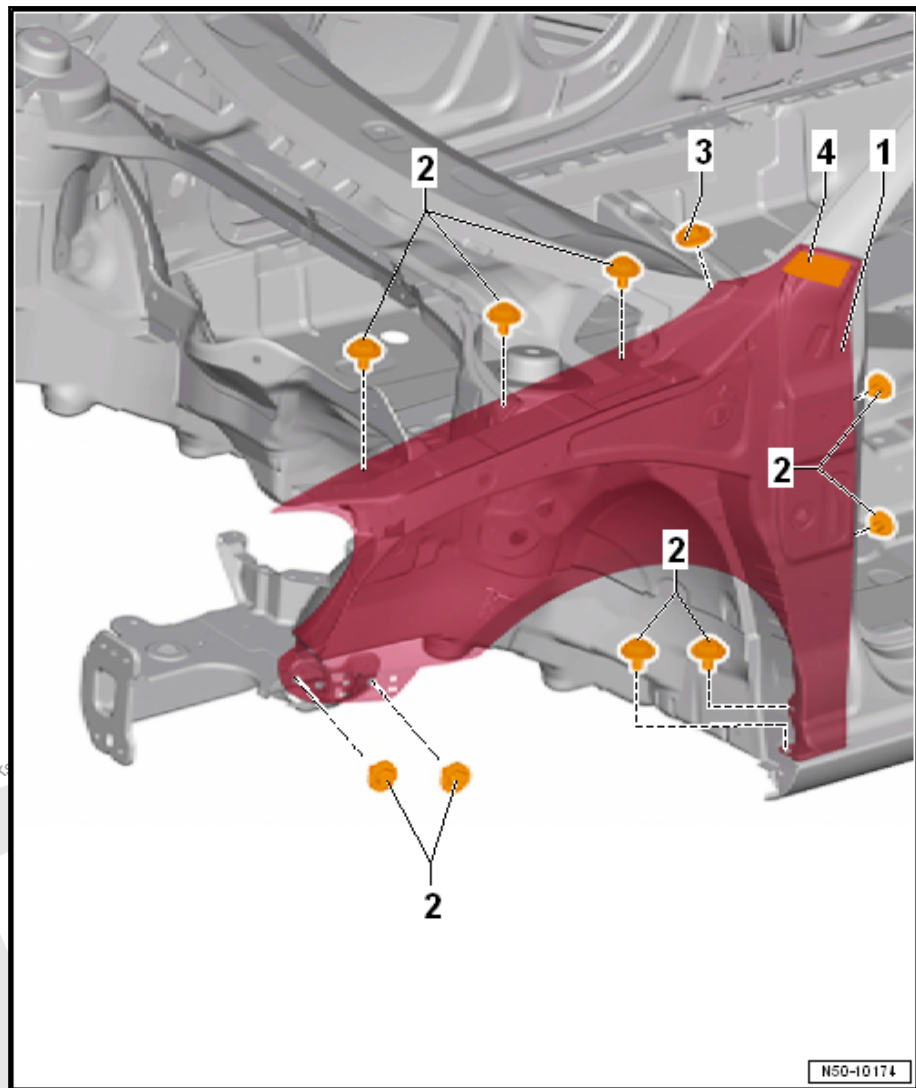


### 2.2.3 Installing



#### Note

- ◆ Install the fender -1- so that it is free of tension.
- ◆ If an adhesive bead -4- is present, then remove this adhesive bead as much as possible.



Install the fender -1- in reverse order of removal while noting the following:

- Place a piece -4- of the butyl adhesive sealing cord (Refer to ⇒ Electronic Parts Catalog (ETKA) ) between the fender and the A-pillar.

The fender -1- is positioned to the height of the A-pillar with the butyl sealing cord piece.

- Insulation, foam pieces and tightening specifications for bolts -2- and hex nuts -3-. Refer to ⇒ [“2.2.1 Overview”, page 9](#) .
- Pay close attention to the parallel alignment and the gap dimensions. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Panel Gap Dimensions; Body Front .





## 2.3 Fender Insulation and Foam Pieces, Fillet Plate and A-Pillar



### Note

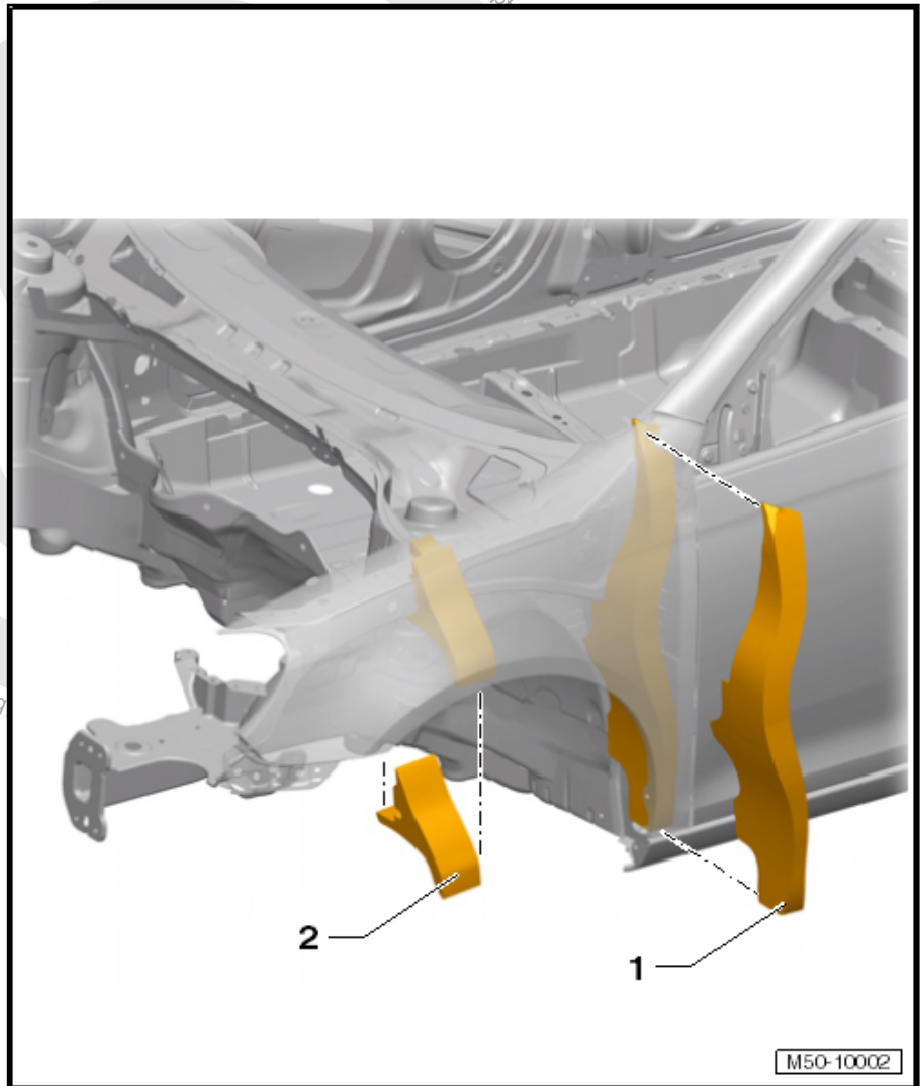
- ◆ The illustration shows the left side. The right side is identical.
- ◆ There is a different insulation installed in the fender depending on whether the vehicle has a manual or an automatic transmission.

#### 1 - Fillet Plate Insulation

- ☐ Installed in front of the fender fillet plate

#### 2 - Foam Piece

- ☐ Inserted between the fender and the upper wheel housing longitudinal member



## 2.4 Fender End Piece



### Note

- ◆ The illustration shows the left side. The right side is identical.
- ◆ There is a different insulation installed in the fender depending on whether the vehicle has a manual or an automatic transmission.



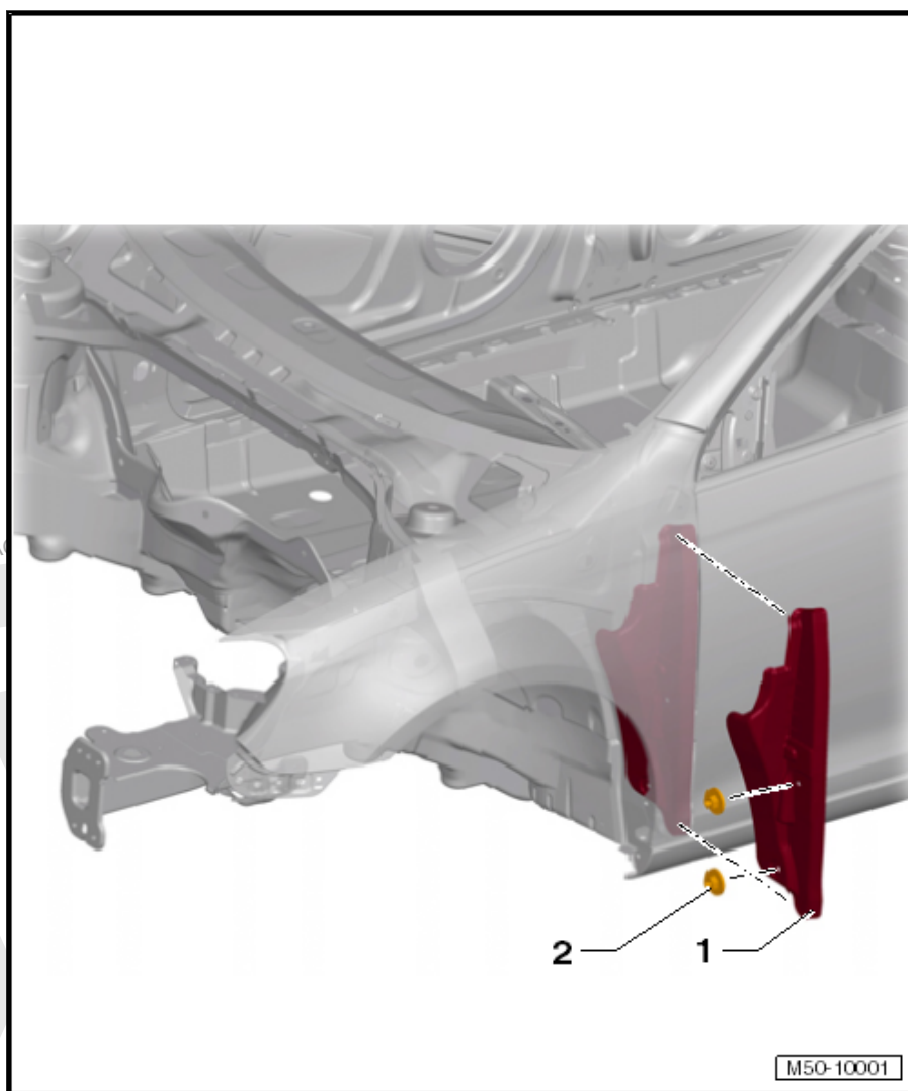


### 1 - End Piece

- ☐ Installed in front of the fender fillet plate

### 2 - Nut

- ☐ Quantity: 2
- ☐ Tightening specification: 2.5 Nm



## 2.5 Fender Brace, Removing and Installing

⇒ [“2.5.1 Removing”, page 15](#)

⇒ [“2.5.2 Installing”, page 15](#)



### Note

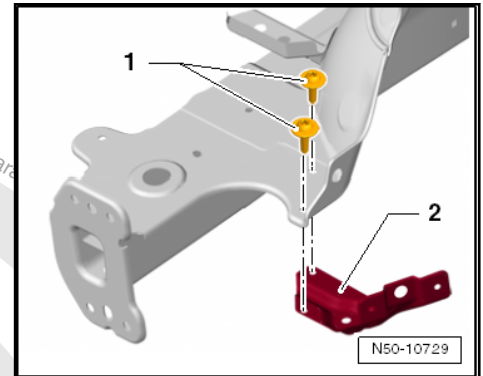
*The following describes the removal and installation of the left fender brace. Removing and installing the right fender brace is identical.*





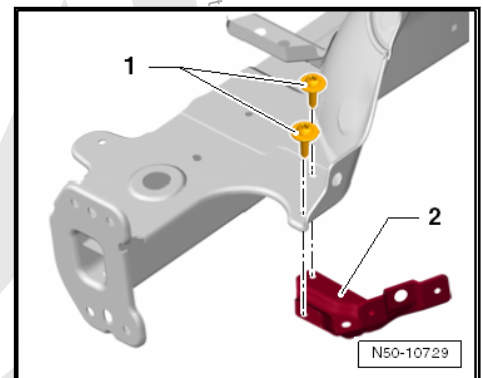
## 2.5.1 Removing

- Remove the front bumper cover. Refer to ⇒ [“1.4.2 Removing”, page 208](#).
- Remove the screws -1- and the fender brace -2-.



## 2.5.2 Installing

- Mount the fender brace -2-.
- Align the fender brace and the fender to the hood and bumper. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Panel Gap Dimensions; Body Front.
- Tightening specifications for bolts -2-: 6 Nm.







### 3 Plenum Chamber Bulkhead

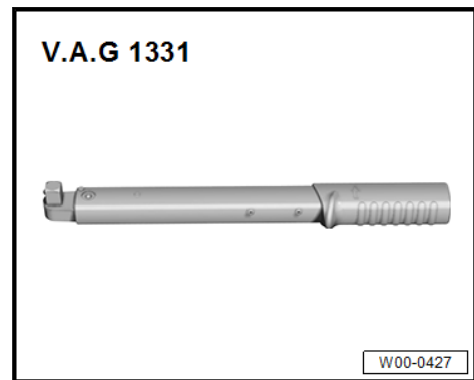
⇒ ["3.1 Tools", page 16](#)

⇒ ["3.2 Overview - Plenum Chamber Bulkhead", page 16](#)

#### 3.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-



#### 3.2 Overview - Plenum Chamber Bulkhead







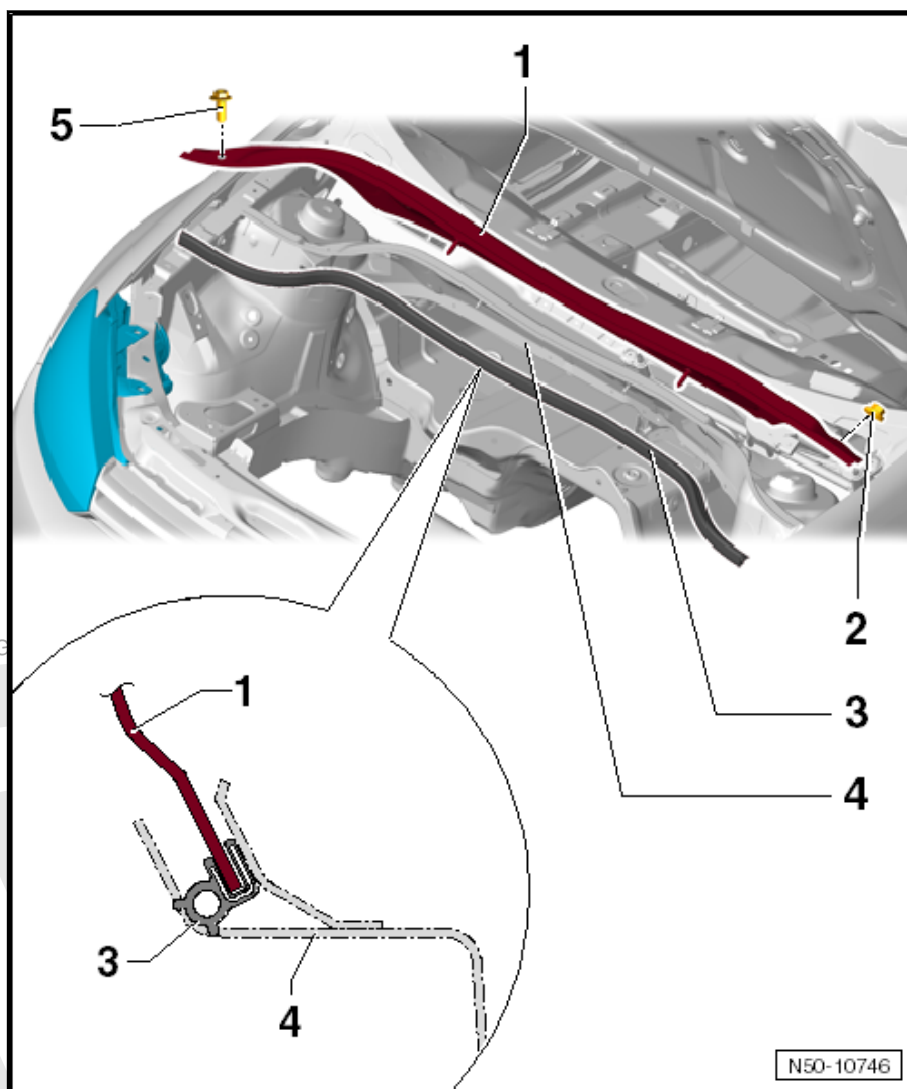
## 1 - Plenum Chamber Bulkhead

- ☐ Removing:
  - Remove the plenum chamber cover. Refer to ⇒ ["4.1.2 Removing"](#), [page 18](#).
  - Remove the screw -5- and the nut -2-.
  - Remove the plenum chamber bulkhead from the plenum chamber -4-.

## 2 - Nut

- ☐ Quantity: 1
- ☐ Tightening specification: 8 Nm.

## 3 - Seal



## Note

*Make the seal fits correctly when installing the plenum chamber bulkhead.*

## 4 - Plenum Chamber

## 5 - Bolt

- ☐ Quantity: 1
- ☐ Tightening specification: 8 Nm.







## 4 Plenum Chamber Cover

⇒ ["4.1 Plenum Chamber Cover", page 18](#)

### 4.1 Plenum Chamber Cover

⇒ ["4.1.1 Overview", page 18](#)

⇒ ["4.1.2 Removing", page 18](#)

⇒ ["4.1.3 Installing", page 20](#)

#### 4.1.1 Overview

##### 1 - Plenum Chamber Cover

- ☐ Removing. Refer to ⇒ ["4.1.2 Removing", page 18](#).
- ☐ Installing. Refer to ⇒ ["4.1.3 Installing", page 20](#).

##### 2 - Seal

##### 3 - Molded Foam Part

- ☐ Left

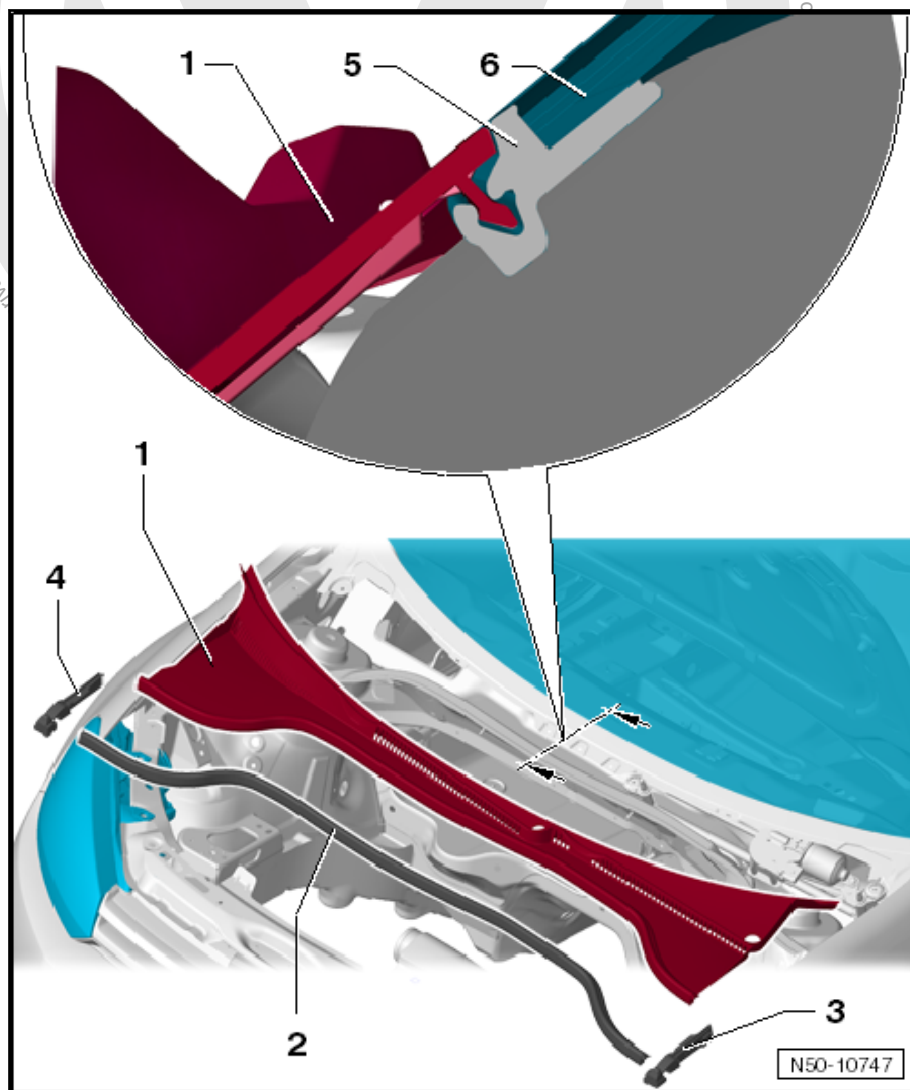
##### 4 - Molded Foam Part

- ☐ Right

##### 5 - Retainer

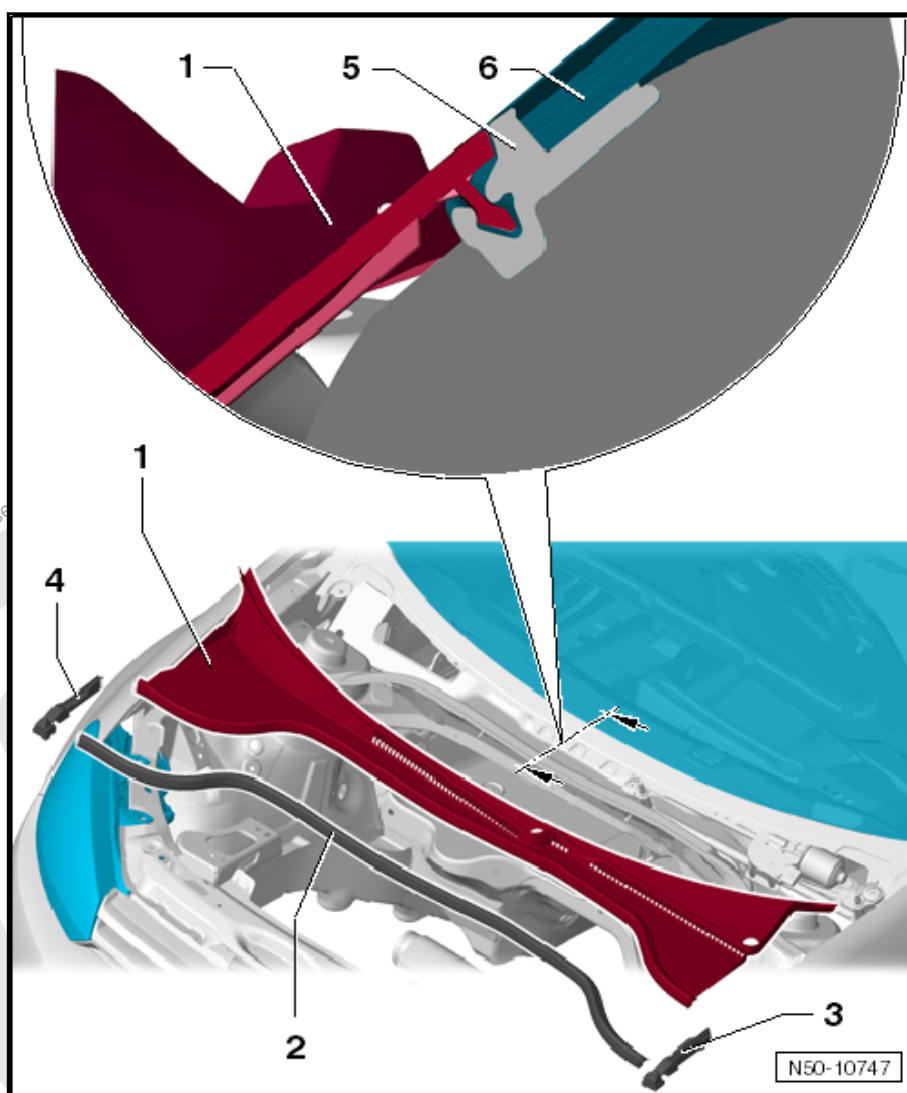
- ☐ Windshield component

##### 6 - Windshield



#### 4.1.2 Removing





- Remove the wiper arms. Refer to ⇒ Electrical Equipment; Rep. Gr. 92 ; Windshield Wiper System; Windshield Wiper System, Removing and Installing .
- Remove the seal -2- over the entire length of the plenum chamber cover -1-.



#### Caution

*The window glass could be damaged.*

*The plenum chamber cover must not be pried off using a levering tool (screwdriver, wedge). The window will be damaged and could crack later.*

- Lift the plenum chamber cover -1- off along the edge of the windshield -6- by hand.
- Remove the plenum chamber cover -1- from the retainer -5- starting at the edge of the windshield -6-.
- Remove the plenum chamber cover -1- from the vehicle.





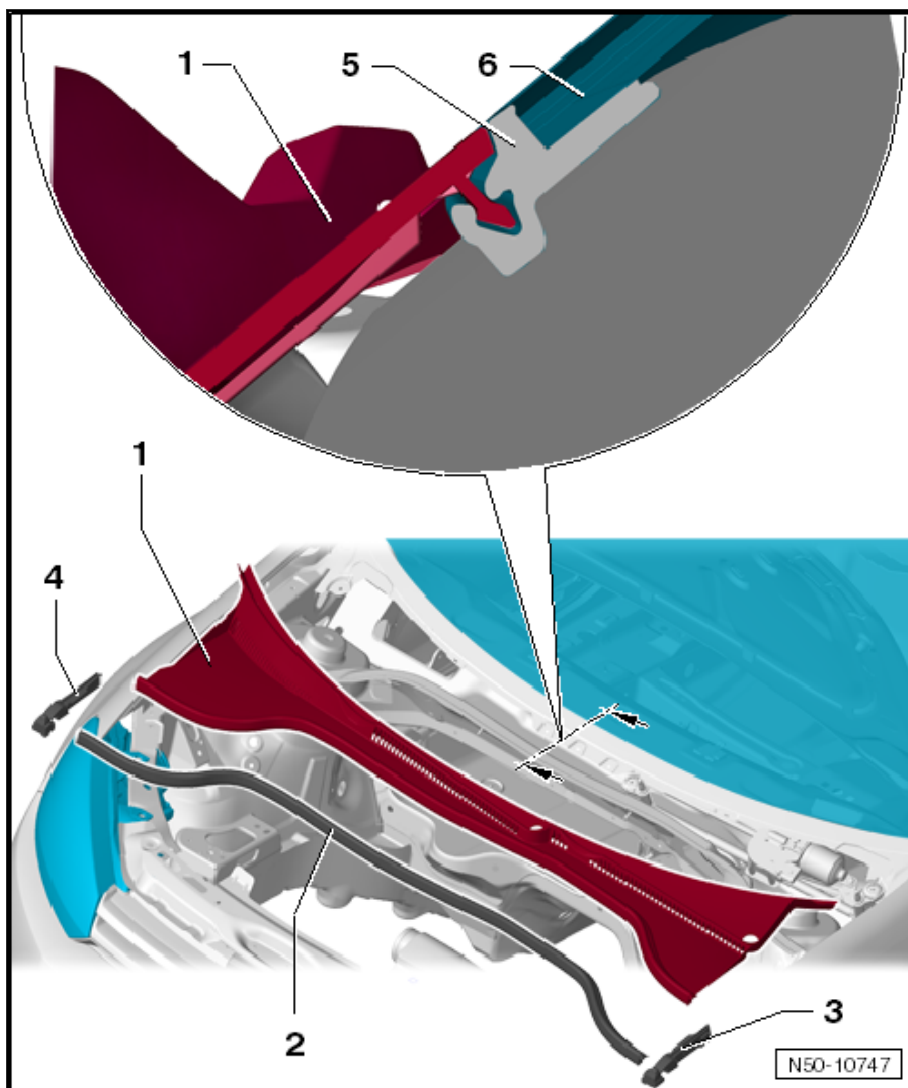
### 4.1.3 Installing



#### Caution

*The windshield -6- could break.*

*Using a hammer to install the plenum chamber -1- into the binding profile -5- on the windshield -6- can cause the windshield to crack.*



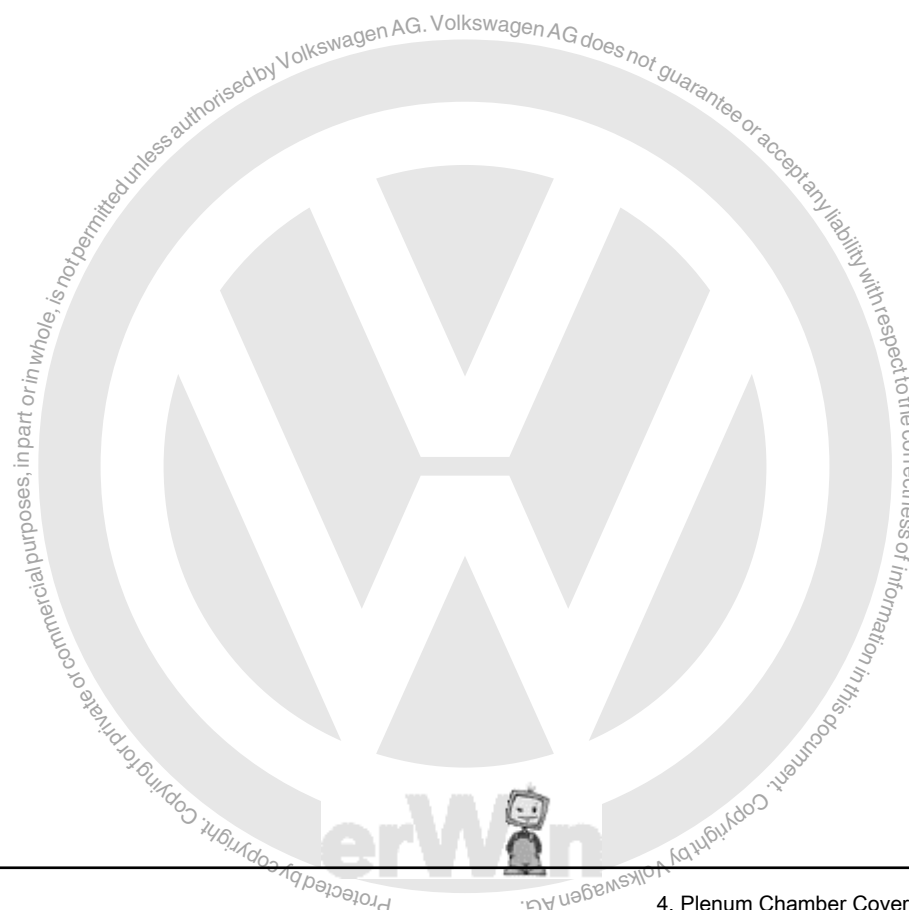
#### Note

- ◆ An insert is installed in the retainer on new windshields. This insert must be removed before installing the plenum chamber cover.
- ◆ Press the plenum chamber cover into the retainer lightly by hand. Do not strike it or press on it with a tool.
- Spray the binding profile -5- with soap solution so that plenum chamber cover -1- can be pressed in more easily.





- Place the plenum chamber covers -1- onto the binding profile -5- and then clip it with light pressure starting in the center into the binding profile -5-.
- Install the seal -2- on the plenum chamber cover -1-.
- Install the wiper arms. Refer to ⇒ Electrical Equipment; Rep. Gr. 92 ; Windshield Wiper System; Windshield Wiper System, Removing and Installing .







## 5 Noise Insulation

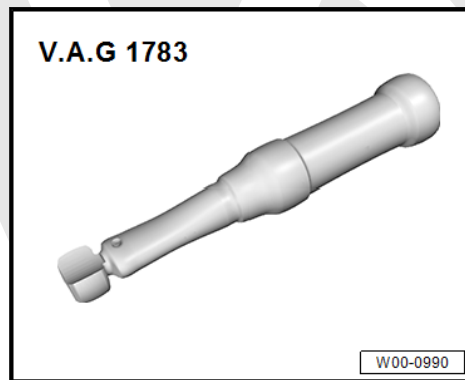
⇒ ["5.1 Tools", page 22](#)

⇒ ["5.2 Overview - Noise Insulation", page 22](#)

### 5.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



### 5.2 Overview - Noise Insulation



Note

*Depending on the engine version, slight deviations must be considered when removing and installing.*





### 1 - Noise Insulation

- ☐ The -arrow- points to the direction of travel.
- ☐ Removing:
  - Remove the screws -2, 3 and 4-

### 2 - Bolt

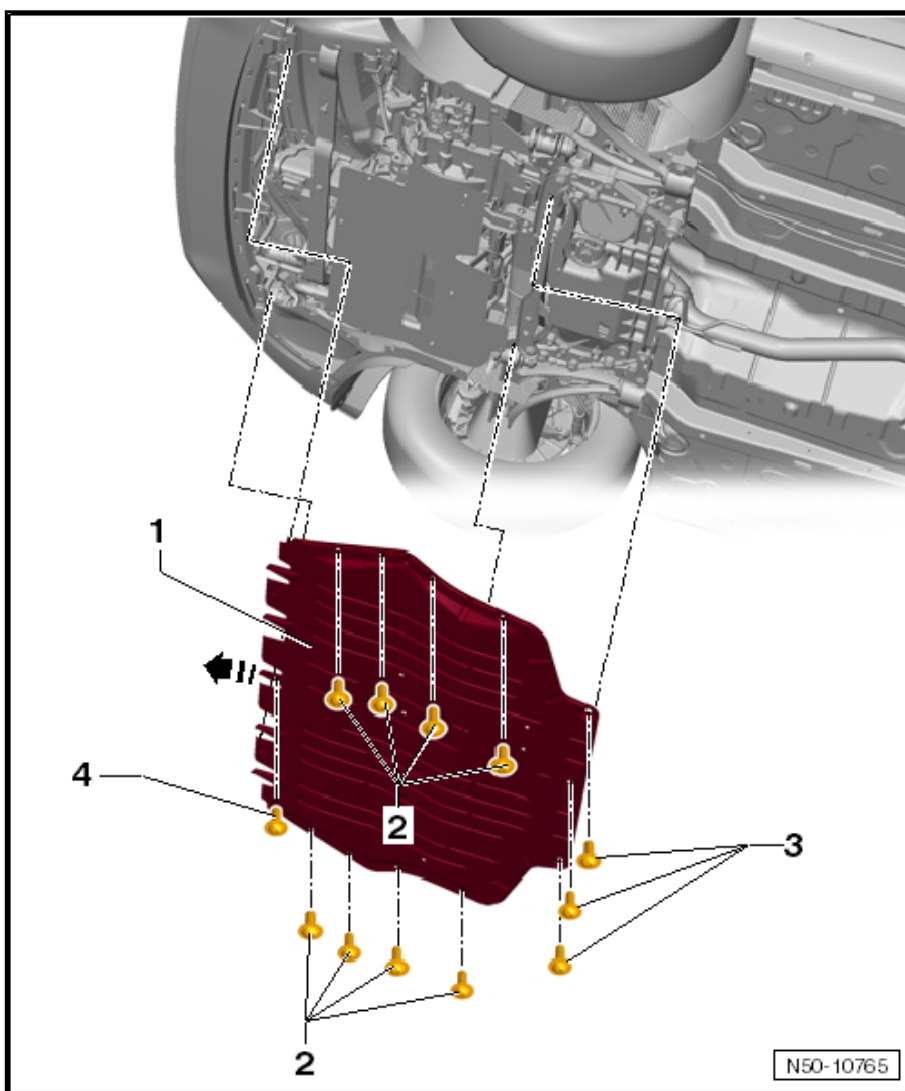
- ☐ Quantity: 4 on each side
- ☐ Tightening specification: 2 Nm

### 3 - Bolt

- ☐ Quantity: 3
- ☐ Always replace
- ☐ Tightening specification: 6 Nm

### 4 - Bolt

- ☐ Quantity: 1
- ☐ Tightening specification: 2 Nm







## 6 Underbody Trim Panel

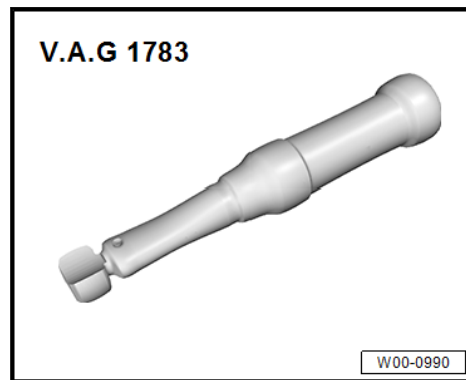
⇒ ["6.1 Tools", page 24](#)

⇒ ["6.2 Overview - Underbody Trim Panels", page 24](#)

### 6.1 Tools

Special tools and workshop equipment required

- ♦ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



### 6.2 Overview - Underbody Trim Panels



Note

*The illustration shows the left side. The right side is identical.*







**1 - Underbody Trim Panel**

- ☐ Removing:
- Remove the nuts -2-.

**2 - Nut**

- ☐ Quantity: 8
- ☐ Tightening specification: 1.5 Nm

**3 - Bolt**

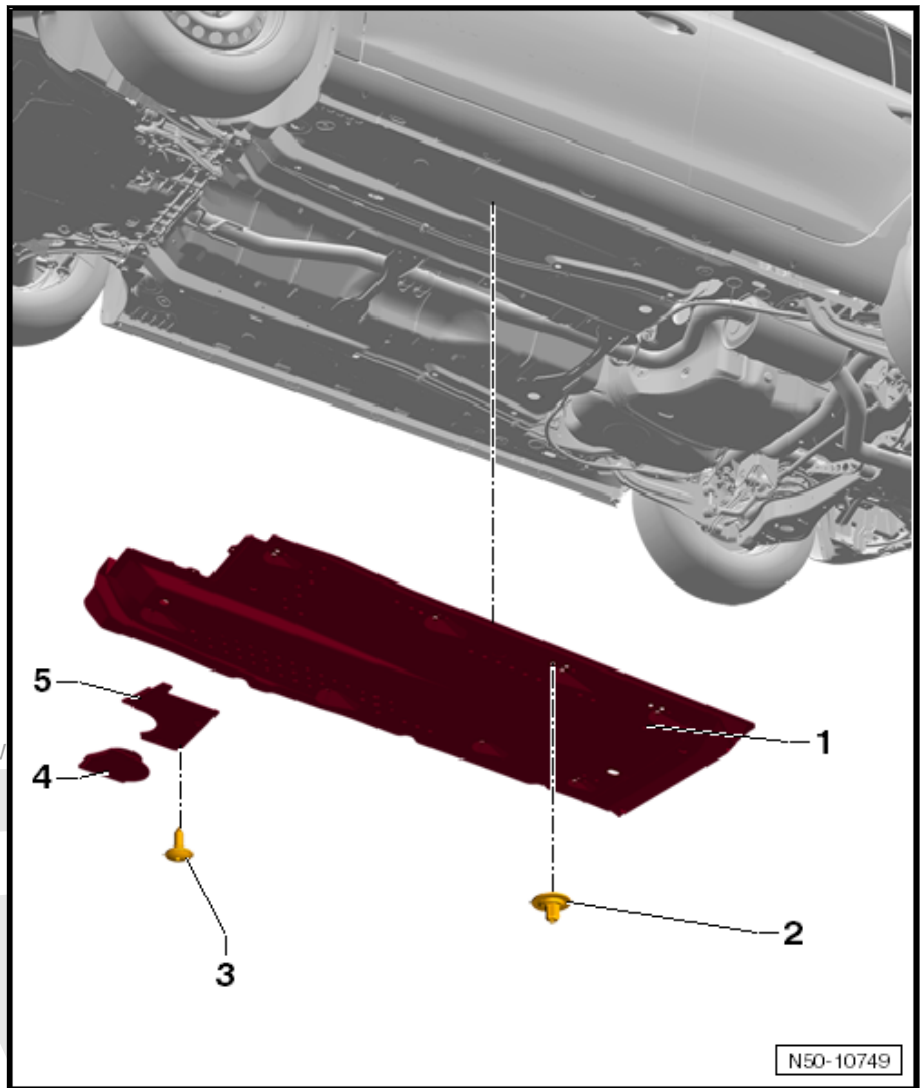
- ☐ Quantity: 2
- ☐ Tightening specification: 2 Nm

**4 - Cap**

- ☐ locked in the underbody

**5 - Cover**

- ☐ Removing:
- Remove the bolts -3-.







## 7 Cross Panel

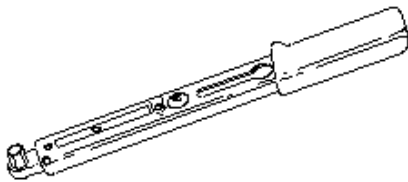
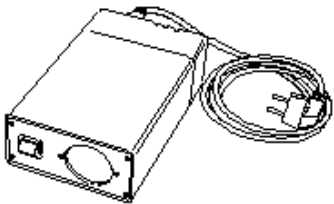
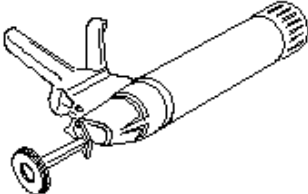
⇒ "7.1 Tools", page 26

⇒ "7.2 Materials", page 26

⇒ "7.3 Overview - Cross Panel", page 27

### 7.1 Tools

Special tools and workshop  
equipment required

<b>V.A.G 1331</b> 	<b>V.A.G 1939</b> 
<b>V.A.G 1628</b> 	

W50-10002

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-
- ◆ Cartridge Heater - V.A.G 1939A-
- ◆ Cartridge Gun - V.A.G 1628-

### 7.2 Materials



Note

Refer to the ⇒ *Electronic Parts Catalog (ETKA)* for the material  
part numbers.





- ◆ One-part window adhesive 1) 2)
- ◆ Activator
- ◆ Glass Primer/Paint Primer
- ◆ Cleaning Solution
- ◆ Primer Applicator

1) Heat according to the manufacturer's instructions using the Adhesive Heater - 1939US- .

2) Note the minimum curing time. Refer to ➤ ["1.18 Minimum Curing Time", page 246](#) .

### 7.3 Overview - Cross Panel



#### Note

*Cross panel -1- is bolted and also bonded in with PUR adhesive sealing material -3-.*

#### 1 - Cross Panel

- ☐ Removing:
  - Cut through the bead of adhesive -3- after removing the screws -2-.

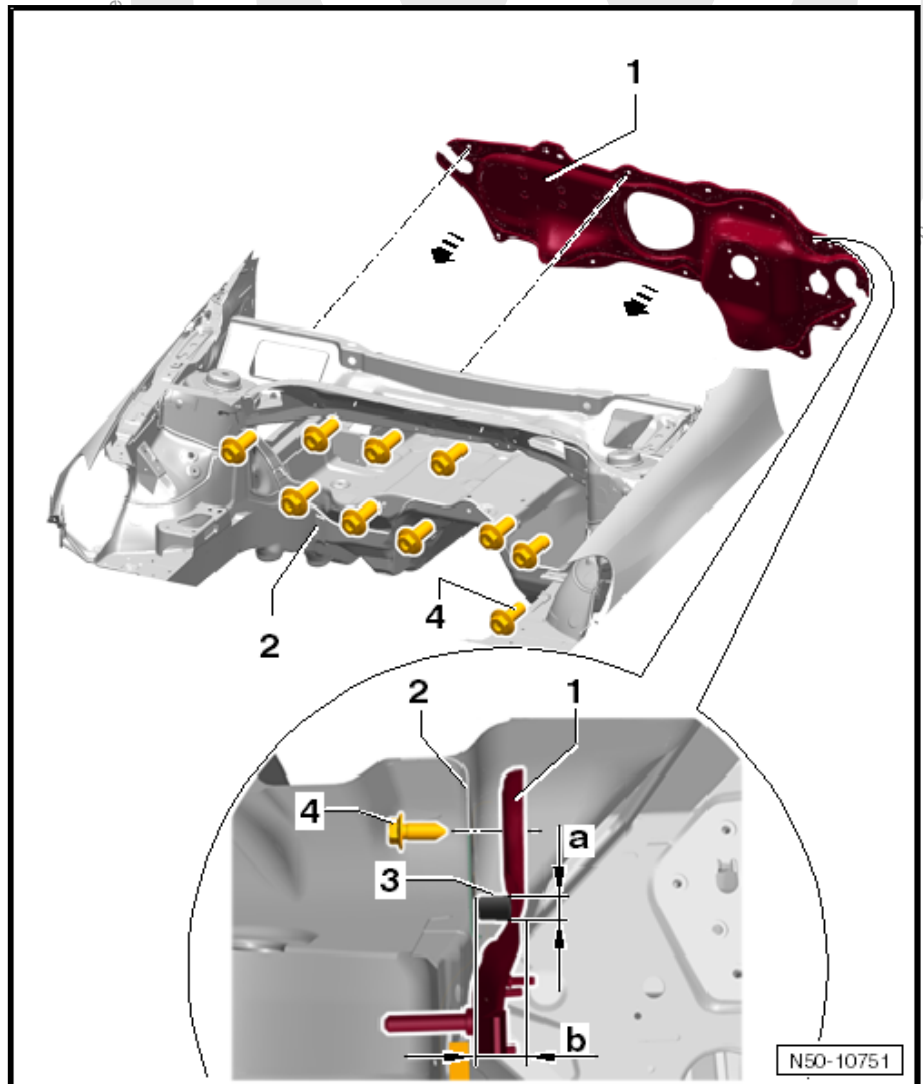
#### 2 - Body Flange

#### 3 - PUR Adhesive Sealant

- ☐ DH 009 100 03
- ☐ Bead diameter: width = 8 mm, height = 10 mm
- ☐ Minimum Curing Time. Refer to ➤ ["1.18 Minimum Curing Time", page 246](#) .

#### 4 - Bolt

- ☐ Quantity: 10
- ☐ Tightening specification: 25 Nm







## 8 Tunnel Brace

⇒ ["8.1 Tools", page 28](#)

⇒ ["8.2 Overview - Tunnel Brace", page 28](#)

### 8.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-

**V.A.G 1331**



W00-0427

### 8.2 Overview - Tunnel Brace



**Note**

*The -arrow- points in the direction of travel.*





### 1 - Front Tunnel Brace

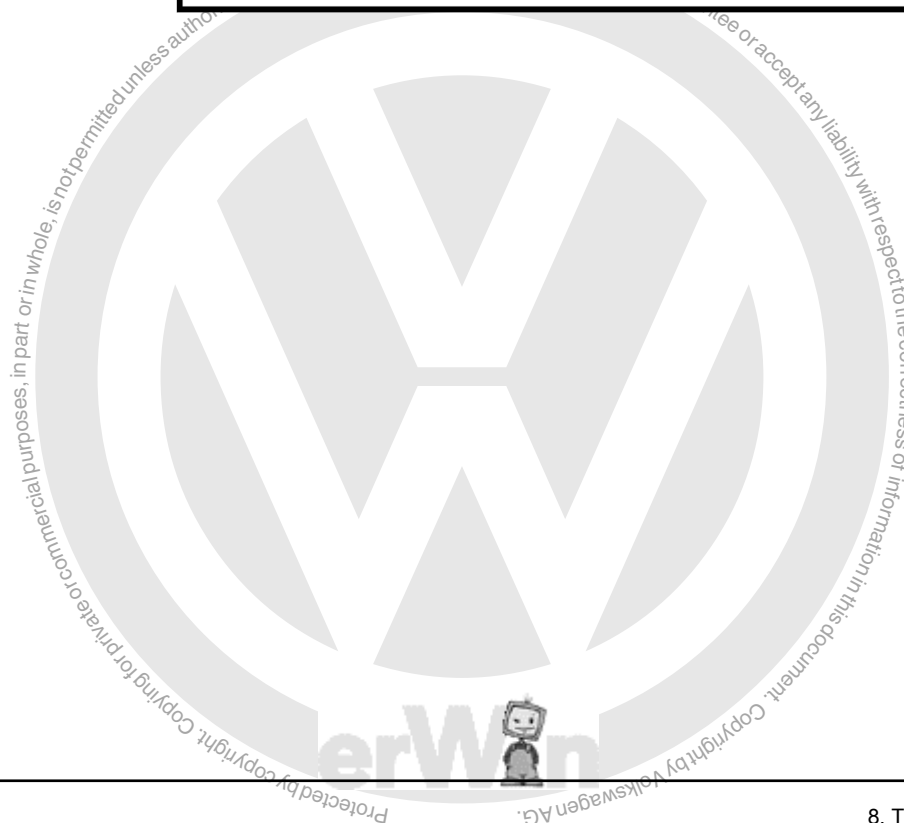
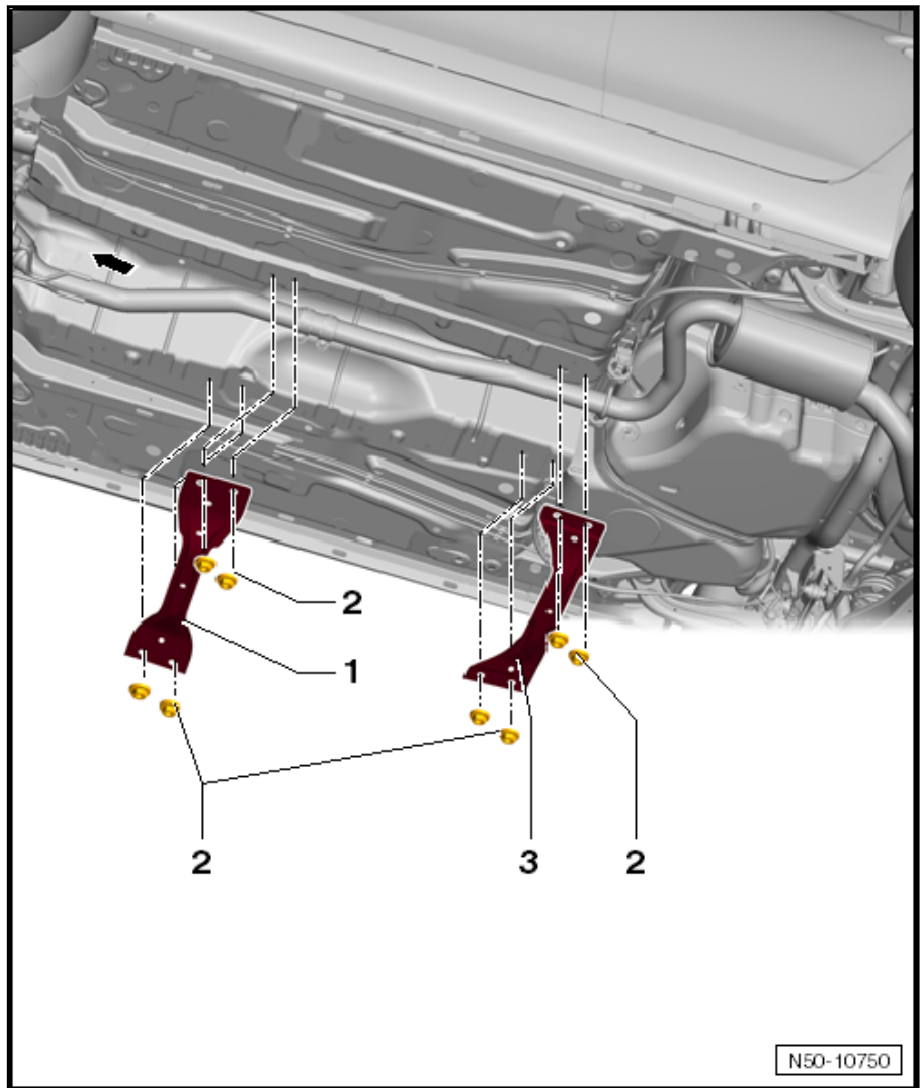
- ☐ Removing:
  - Remove the nut -2- (2 on each side).

### 2 - Nut

- ☐ Quantity: 4 per tunnel bridge
- ☐ Tightening specification: 20 Nm

### 3 - Rear Tunnel Brace

- ☐ Removing:
  - Remove the nut -2- (2 on each side).







## 55 – Hood, Lids

### 1 Hood

- ⇒ [“1.1 Tools”, page 30](#)
- ⇒ [“1.2 Overview - Hood”, page 31](#)
- ⇒ [“1.3 Hood, Removing and Installing”, page 32](#)
- ⇒ [“1.4 Hood Hinge, Removing and Installing”, page 34](#)
- ⇒ [“1.5 Insulation, Removing and Installing”, page 36](#)
- ⇒ [“1.6 Overview - Seals”, page 37](#)
- ⇒ [“1.7 Gas-Filled Strut, Removing”, page 38](#)
- ⇒ [“1.8 Overview - Hood Locking and Unlocking Components”, page 40](#)
- ⇒ [“1.9 Latch, Removing and Installing, LHD”, page 41](#)
- ⇒ [“1.10 Lid Latch, Removing and Installing, RHD – Not for North American Market”, page 45](#)
- ⇒ [“1.11 Release Cable, Disconnecting”, page 48](#)
- ⇒ [“1.12 Hood, Adjusting”, page 49](#)
- ⇒ [“1.13 Striker, Removing and Installing”, page 51](#)
- ⇒ [“1.14 Striker, Adjusting”, page 51](#)
- ⇒ [“1.15 Release Lever, Removing and Installing”, page 52](#)

#### 1.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-

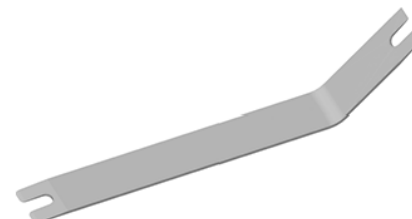
V.A.G 1331



W00-0427

- ◆ Pry Lever - 80-200-

80-200



W00-0353





## 1.2 Overview - Hood

### 1 - Hood

- ☐ Removing and Installing. Refer to ➤ ["1.3 Hood, Removing and Installing", page 32](#).
- ☐ Adjusting. Refer to ➤ ["1.12 Hood, Adjusting", page 49](#).

### 2 - Striker

### 3 - Center Seal

### 4 - Side Seal

### 5 - Adjusting Buffer

- ☐ Left and right
- ☐ Quantity: 2 on each side

### 6 - Spray Nozzles

- ☐ Removing and Installing. Refer to ➤ Electrical Equipment; Rep. Gr. 92 ; Windshield Washer System; Spray Nozzles, Removing and Installing.

### 7 - Hinge

- ☐ Removing and Installing. Refer to ➤ ["1.4 Hood Hinge, Removing and Installing", page 34](#).
- ☐ Adjusting. Refer to ➤ ["1.12 Hood, Adjusting", page 49](#).

### 8 - Latch

### 9 - Nut

- ☐ The nuts may have a cap in some markets.
- ☐ Quantity: 2 on each side
- ☐ Tightening specification: 22 Nm

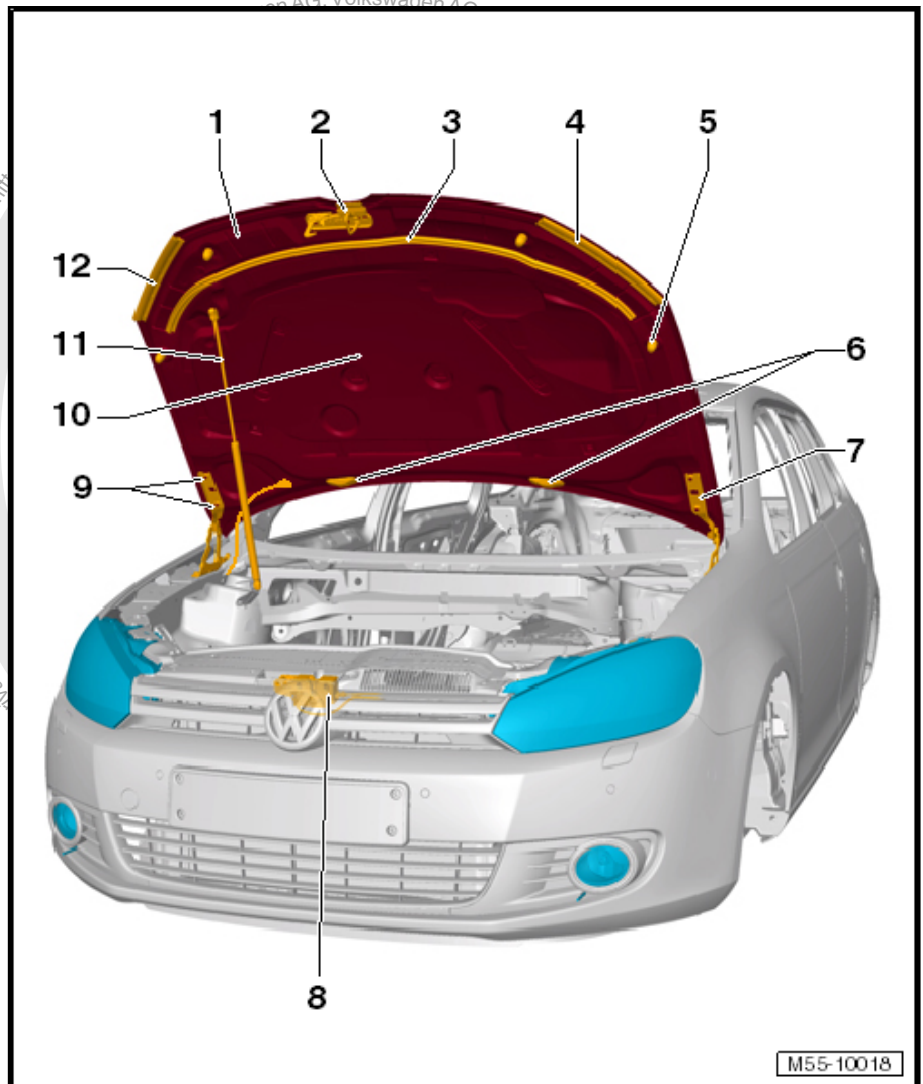
### 10 - Insulation

- ☐ Removing and Installing. Refer to ➤ ["1.5 Insulation, Removing and Installing", page 36](#).

### 11 - Gas-Filled Strut

- ☐ Removing and Installing. Refer to ➤ ["1.7 Gas-Filled Strut, Removing", page 38](#).

### 12 - Side Seal







## 1.3 Hood, Removing and Installing

⇒ "1.3.1 Removing", page 32

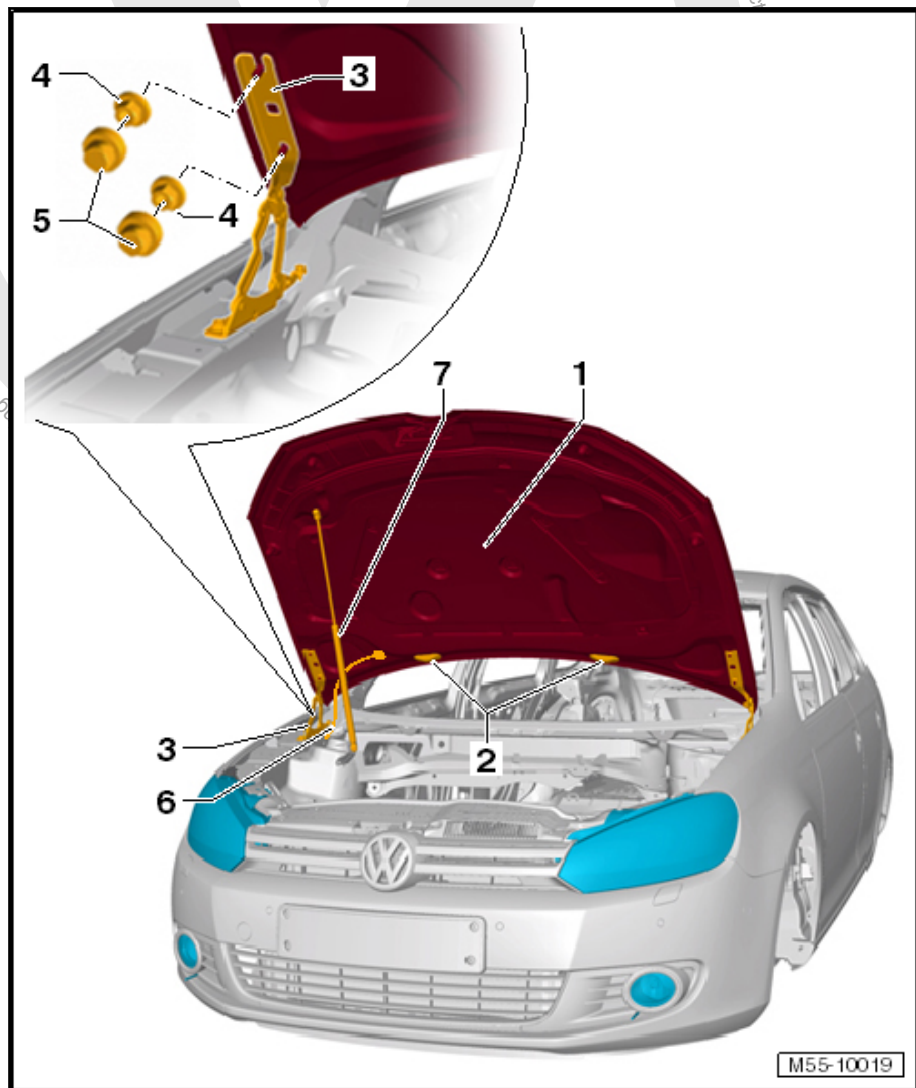
⇒ "1.3.2 Installing", page 33

### 1.3.1 Removing



#### Note

*The caps -5- are not available for all markets.*



- Remove the spray nozzles -2-. Refer to ⇒ Electrical Equipment; Rep. Gr. 92 ; Windshield Washer System; Windshield Washer System Spray Nozzles, Removing and Installing .
- Remove the hose -6- from the hood -1-.
- Remove the line -6- through the opening in the hood -1-.
- Remove the caps from the nuts -5- if necessary.
- Loosen the left and right nuts -4- on the hinge -3- but do not remove the nuts.



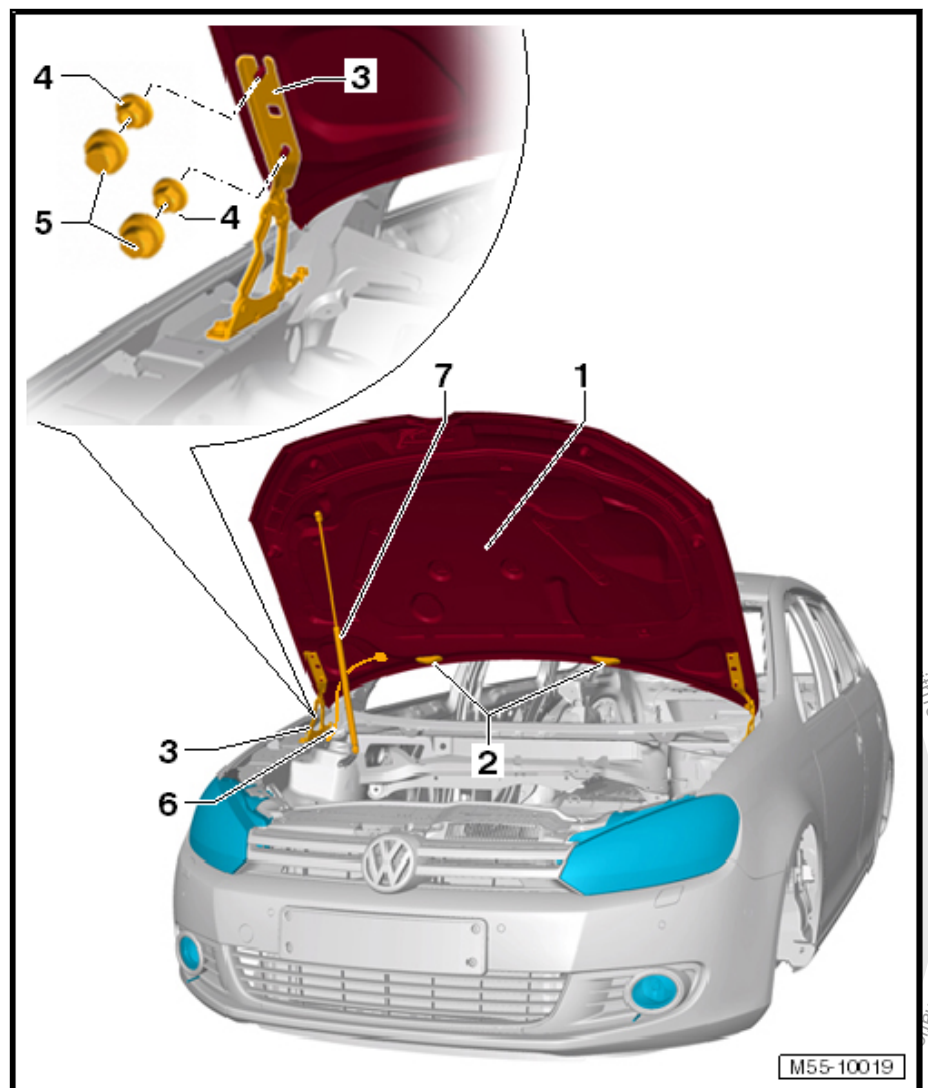
- Remove gas-filled strut -7-. Refer to ⇒ ["1.7 Gas-Filled Strut, Removing", page 38](#).
- Remove the nuts -4- and lift the hood -1- out of the hinges -3-.

### 1.3.2 Installing



### Note

*The caps -5- are not available for all markets.*



Install the hood -1- in reverse order of removal.



### Note

*Route the line -6- in a bend as shown in the illustration. The line will kink if it is twisted during installation.*

- Tightening specification: nuts -4- 22 Nm





- Adjust the hood -1-. Refer to ⇒ [“1.12 Hood, Adjusting”, page 49](#)

## 1.4 Hood Hinge, Removing and Installing

⇒ [“1.4.1 Removing”, page 34](#)

⇒ [“1.4.2 Installing”, page 35](#)



### Note

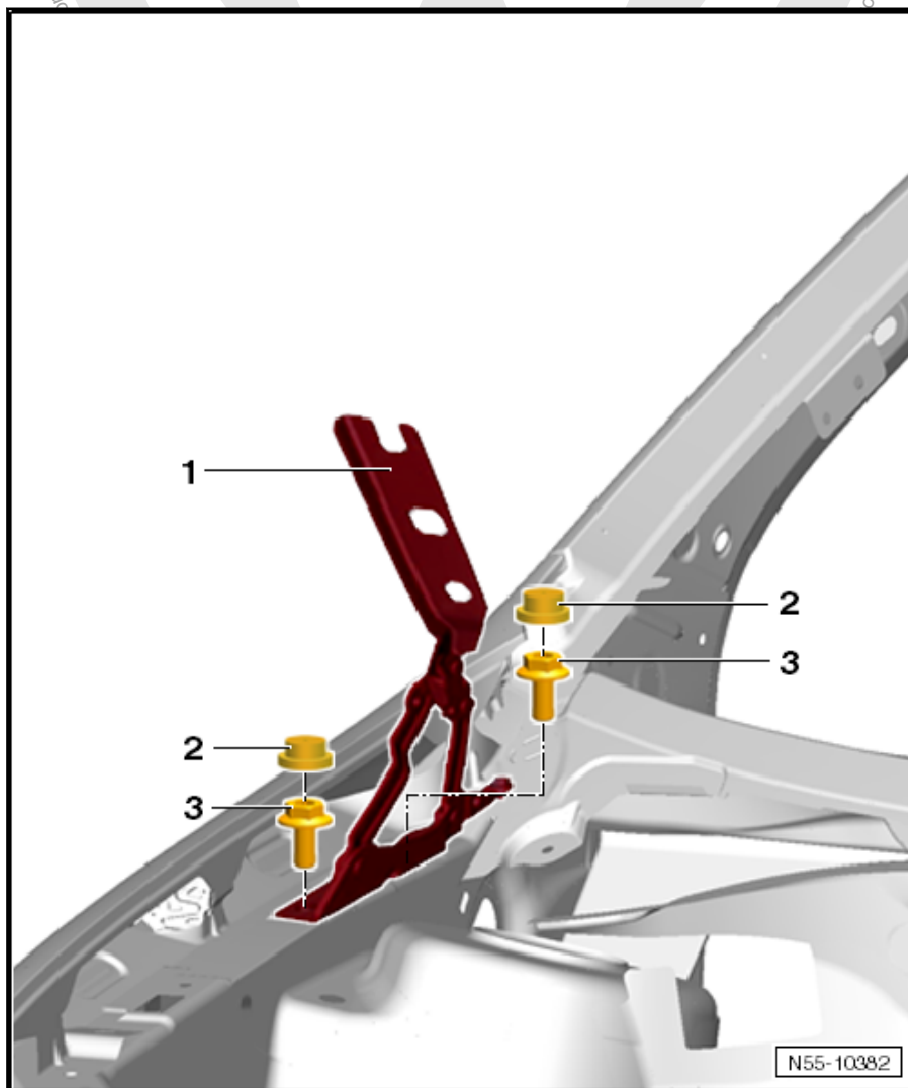
*The following describes the removal and installation of the right hinge. Removing and installing the left hinge is identical.*

### 1.4.1 Removing



### Note

*The caps -2- are not available for all markets.*



- Remove the hood. Refer to ⇒ [“1.3.1 Removing”, page 32](#)





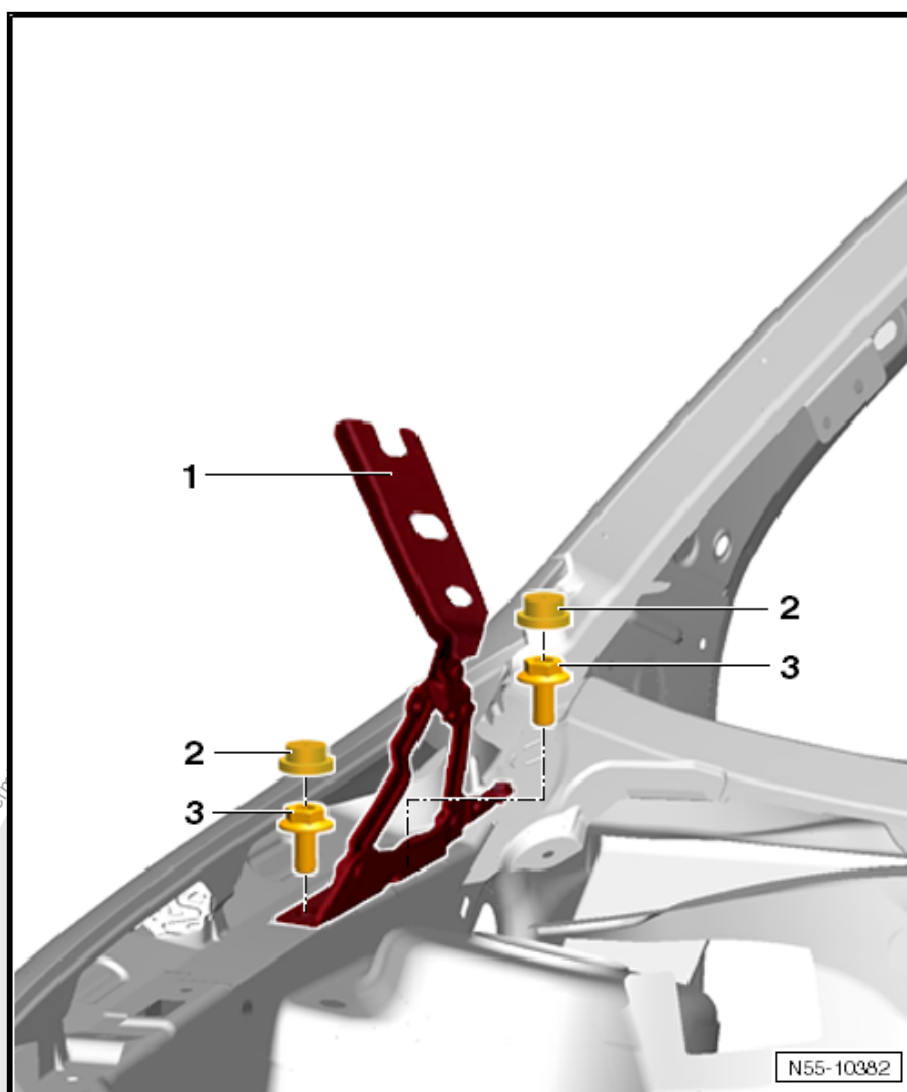
- Remove the plenum chamber cover. Refer to ➤ [“4.1.2 Re-moving”, page 18](#).
- Remove the caps -2- from the bolts if necessary.
- Remove the bolts -3-.
- Remove the hinge -1-.

## 1.4.2 Installing



### Note

*The caps -2- are not available for all markets.*



The installation of the hinge -1- is identical in reverse order of removal.

- Tightening specifications of bolts -3-: 22 Nm.
- Install the hood. Refer to ➤ [“1.3.2 Installing”, page 33](#).



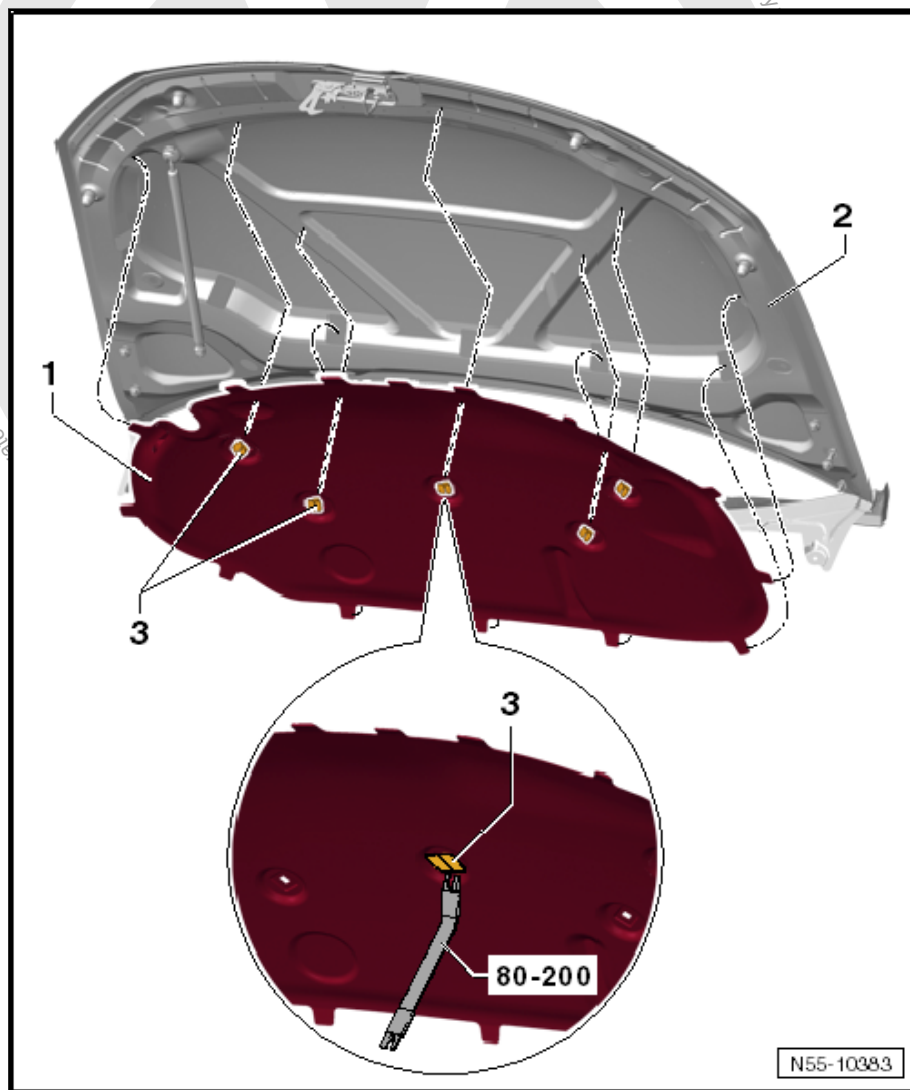


## 1.5 Insulation, Removing and Installing

⇒ "1.5.1 Removing", page 36

⇒ "1.5.2 Installing", page 36

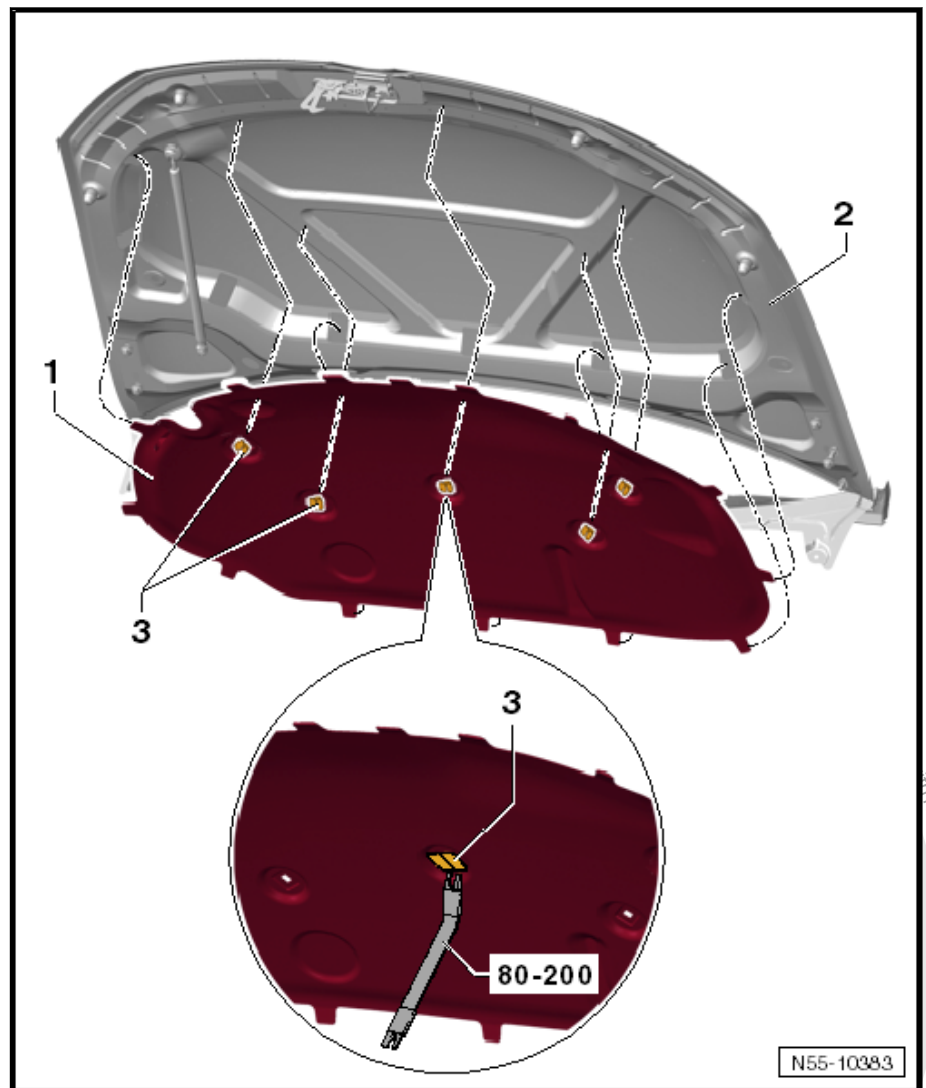
### 1.5.1 Removing



- Pry the clips -3- out of the hood -2- using the Pry Lever - 80 - 200- .
- Pull insulation -1- out of oblong holes.

### 1.5.2 Installing





- When installing insulation -1-, be sure to install the clips -3- with wide side facing out.
- Slide insulation -1- with mounting tabs into oblong holes.
- Install all the clips -3- into the hood -2-.

## 1.6 Overview - Seals





### 1 - Side Seal

- ☐ Removing: pull it off the hood
- ☐ Installing: press into the hood with the clips.

### 2 - Center Seal

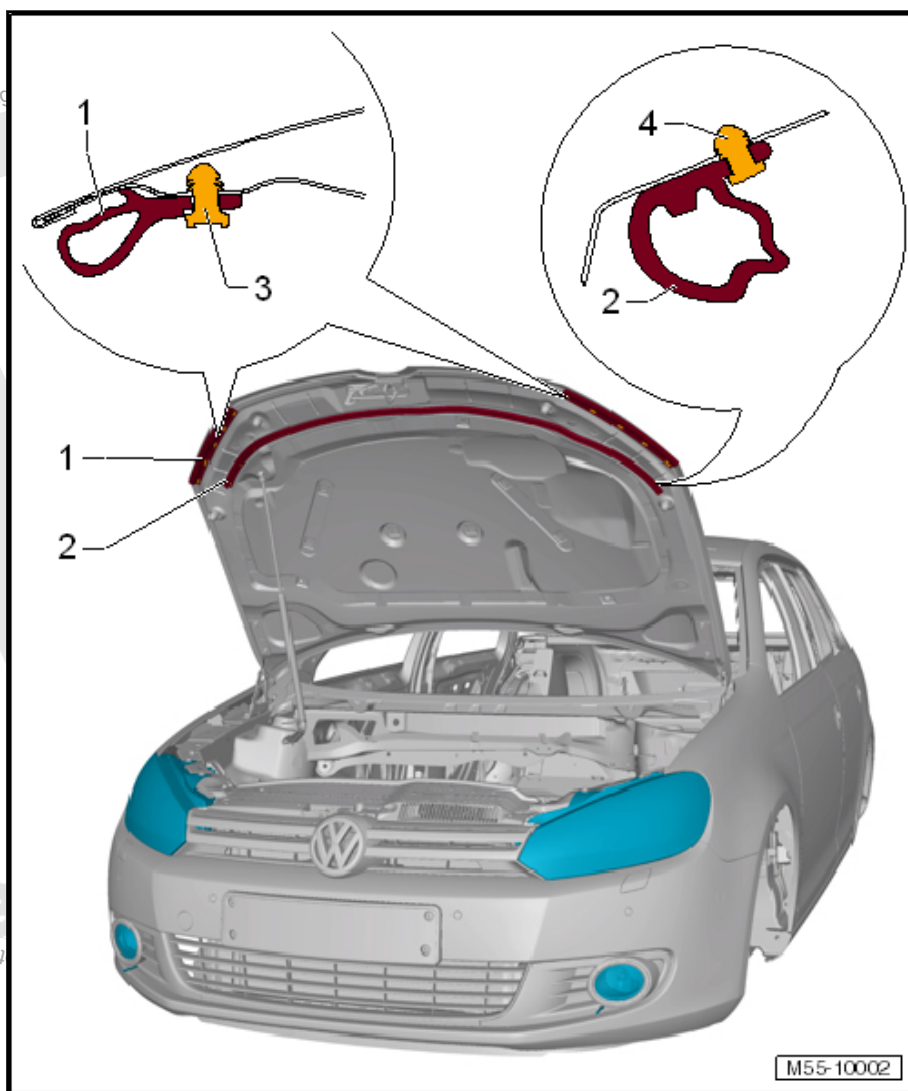
- ☐ Removing: pull it off the hood
- ☐ Installing: press into the hood with the clips.

### 3 - Clip

- ☐ Check for damage before installing and replace if necessary.

### 4 - Clip

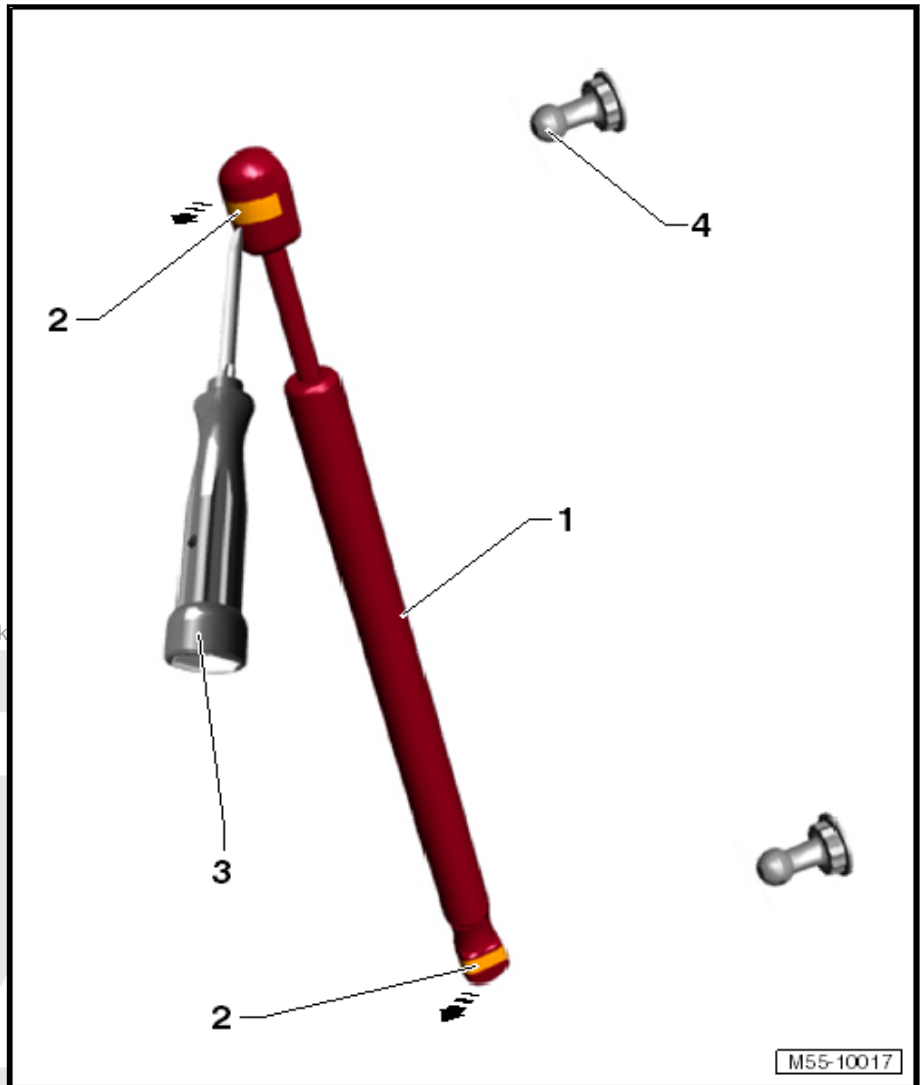
- ☐ Check for damage before installing and replace if necessary.



## 1.7 Gas-Filled Strut, Removing

⇒ ["1.7.1 Gas-Filled Strut, Venting", page 40](#)





- Open and support the hood.
- Insert a small screwdriver -3- under the spring clips -2-.
- Raise the spring clips -2- just far enough so they can slide over the ball socket in direction of the -arrow-.
- Remove the gas-filled strut -1- from the ball stud -4-.
- Slide spring clip -2- back again immediately after removing gas-filled strut -1-.



#### WARNING

***Be careful when reusing the gas strut. Do not pry the spring clip completely out of the ball socket or the spring clip will be damaged. The gas-filled strut will spring out of the mount, resulting in damage or injury to the technician.***

Ball stud -4- tightening specification: 22 Nm

- Vent the gas-filled strut. Refer to ➔ [“2.5 Gas-Filled Strut, Venting”, page 60](#) .





### 1.7.1 Gas-Filled Strut, Venting

- Clamp the gas-filled strut in area x = 50 mm into the vise.



#### WARNING

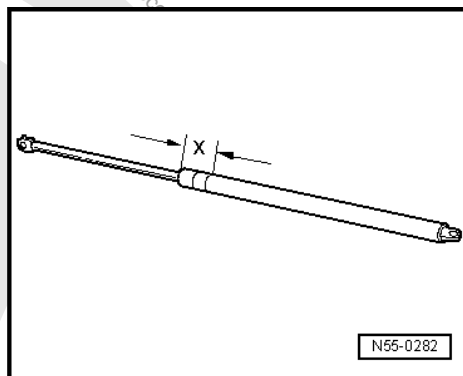
**Only clamp the gas-filled strut in area -x-. Otherwise, an accident may occur.**

- Cut open the gas-filled strut cylinder within the first third of the total cylinder length from the edge on the piston rod side.



#### Note

- ◆ Always wear eye protection when sawing.
- ◆ Cover the area of the sawed portion with a clean cloth.
- ◆ Dispose of the oil and cleaning cloths properly.



### 1.8 Overview - Hood Locking and Unlocking Components





## 1 - Latch

- ❑ Lid Latch, Removing and Installing, LHD. Refer to ⇒ ["1.9 Latch, Removing and Installing, LHD", page 41](#).
- ❑ Lid Latch, Removing and Installing, RHD. Refer to ⇒ ["1.10 Lid Latch, Removing and Installing, RHD -- Not for North American Market", page 45](#).
- ❑ Adjusting. Refer to ⇒ ["1.12.1 Latch, Adjusting", page 50](#).

## 2 - Release Cable

- ❑ From the latch to the release cable coupling
- ❑ Clipped into the release cable coupling

## 3 - Release Cable Coupling

- ❑ The cable coupling is located above the driver side headlamp.
- ❑ Disconnecting. Refer to ⇒ ["1.11 Release Cable, Disconnecting", page 48](#).

## 4 - Release Cable

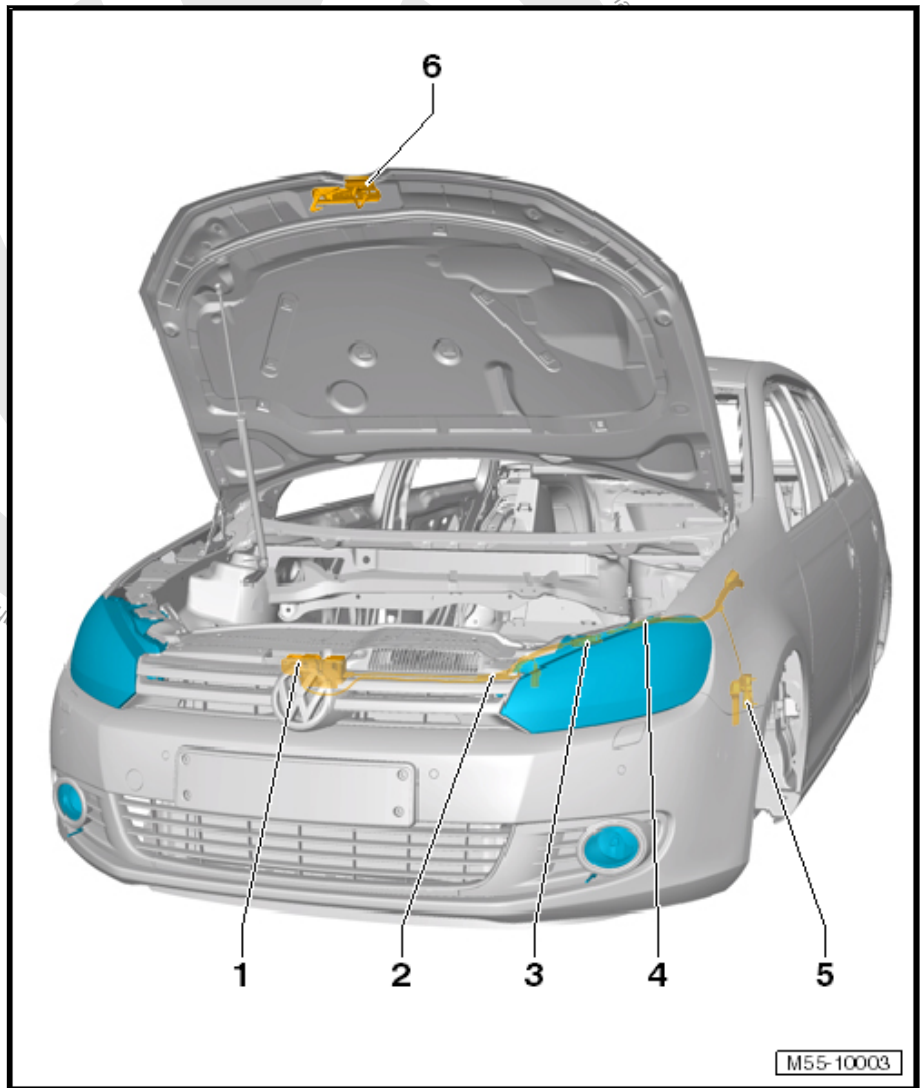
- ❑ From the release cable coupling to the operating lever

## 5 - Operating Lever

- ❑ Removing and Installing. Refer to ⇒ ["1.15 Release Lever, Removing and Installing", page 52](#).

## 6 - Striker

- ❑ Removing. Refer to ⇒ ["1.13 Striker, Removing and Installing", page 51](#).
- ❑ Adjusting. Refer to ⇒ ["1.12.1 Latch, Adjusting", page 50](#).



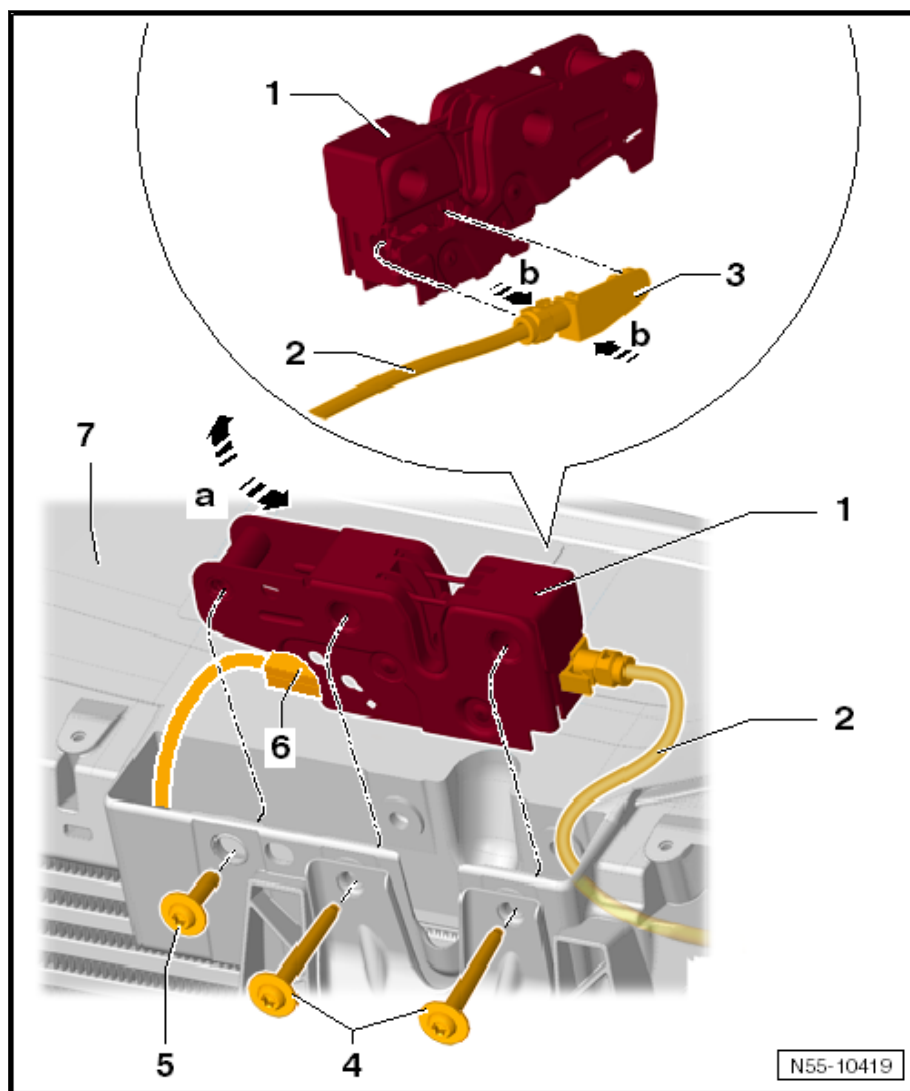
## 1.9 Latch, Removing and Installing, LHD

⇒ ["1.9.1 Removing", page 41](#)

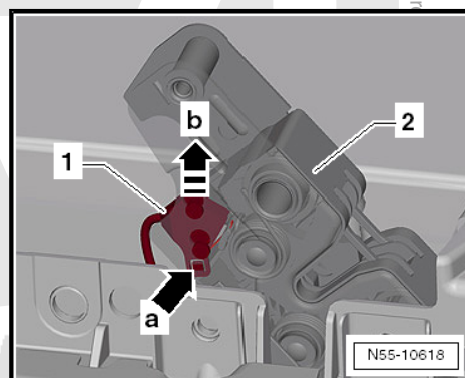
⇒ ["1.9.2 Installing", page 43](#)

### 1.9.1 Removing

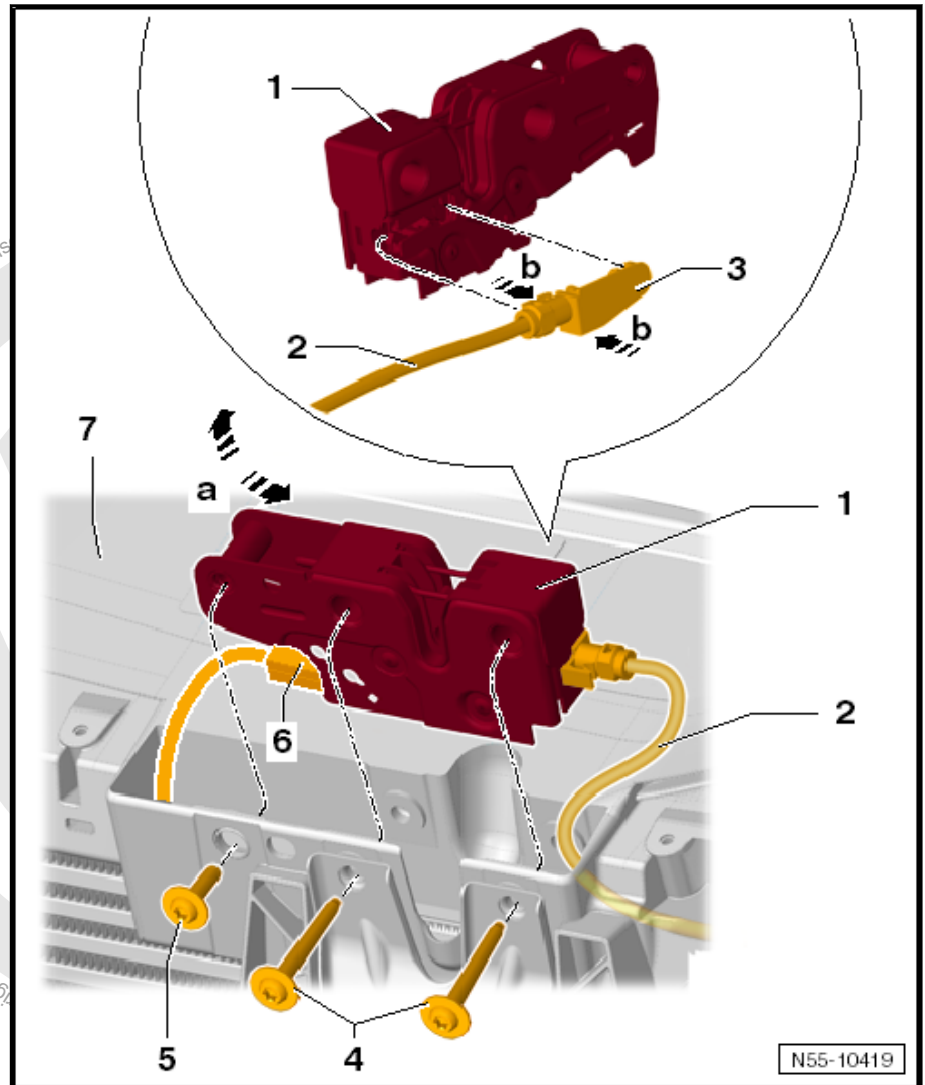




- Open the hood.
- Remove the radiator grille. Refer to ➤ [“4.2.1 Removing”, page 295](#).
- Detach the release cable. Refer to ➤ [“1.11 Release Cable, Disconnecting”, page 48](#).
- Remove the bolts -4 and 5- for the latch -1- on the lock carrier -7-.
- Carefully pull the latch -2- upward from the lock carrier until the Engine Hood Contact Switch - F266- -1- is accessible.
- Release the hooks -arrow a- on the Engine Hood Contact Switch - F266- .
- Push the Engine Hood Contact Switch - F266- in the -direction of the arrow b- and remove it from the latch -2-.
- Remove the latch farther upward from the lock carrier.



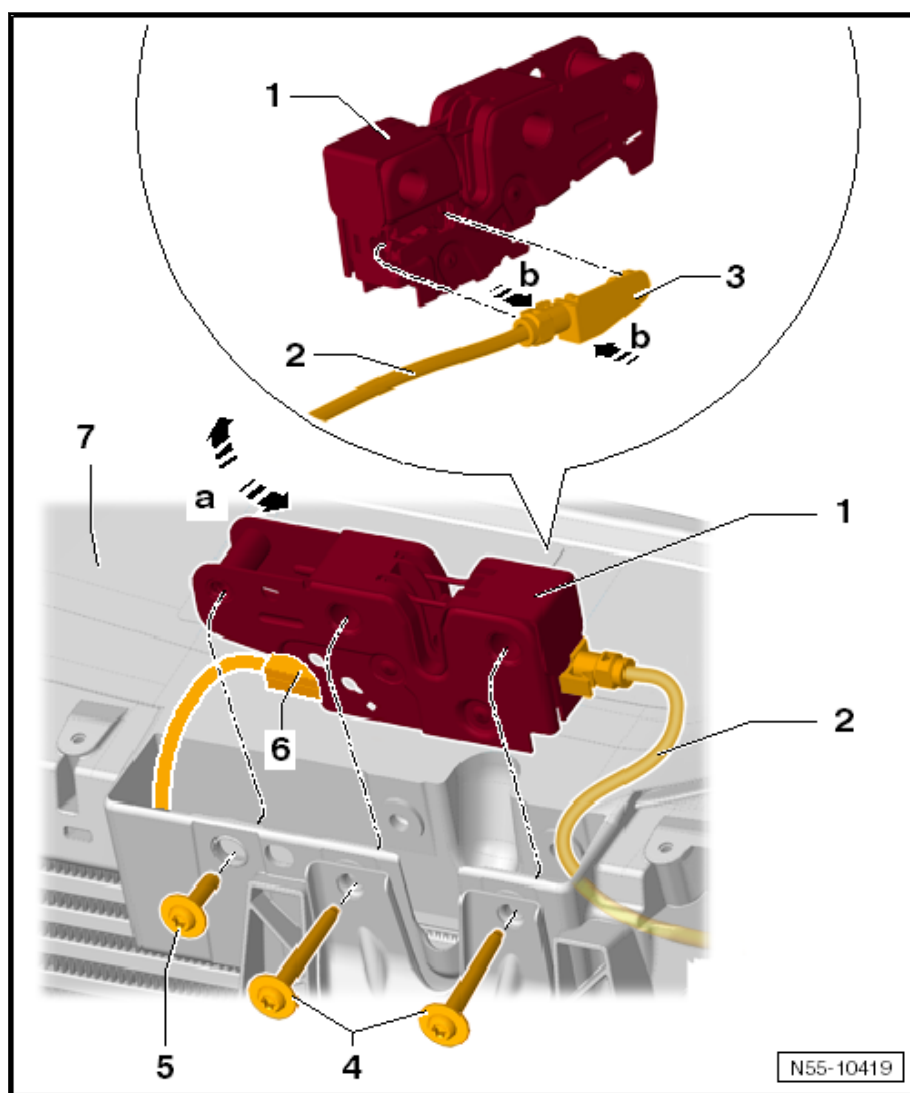




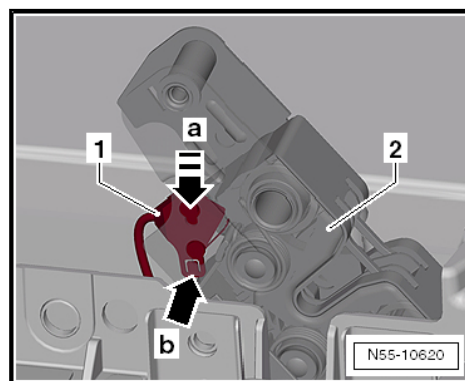
- Press the tabs on the bracket -arrows b- and release the bracket -3-.
- The catch is released and the release cable -2- can be removed from the latch -1-.

### 1.9.2 Installing

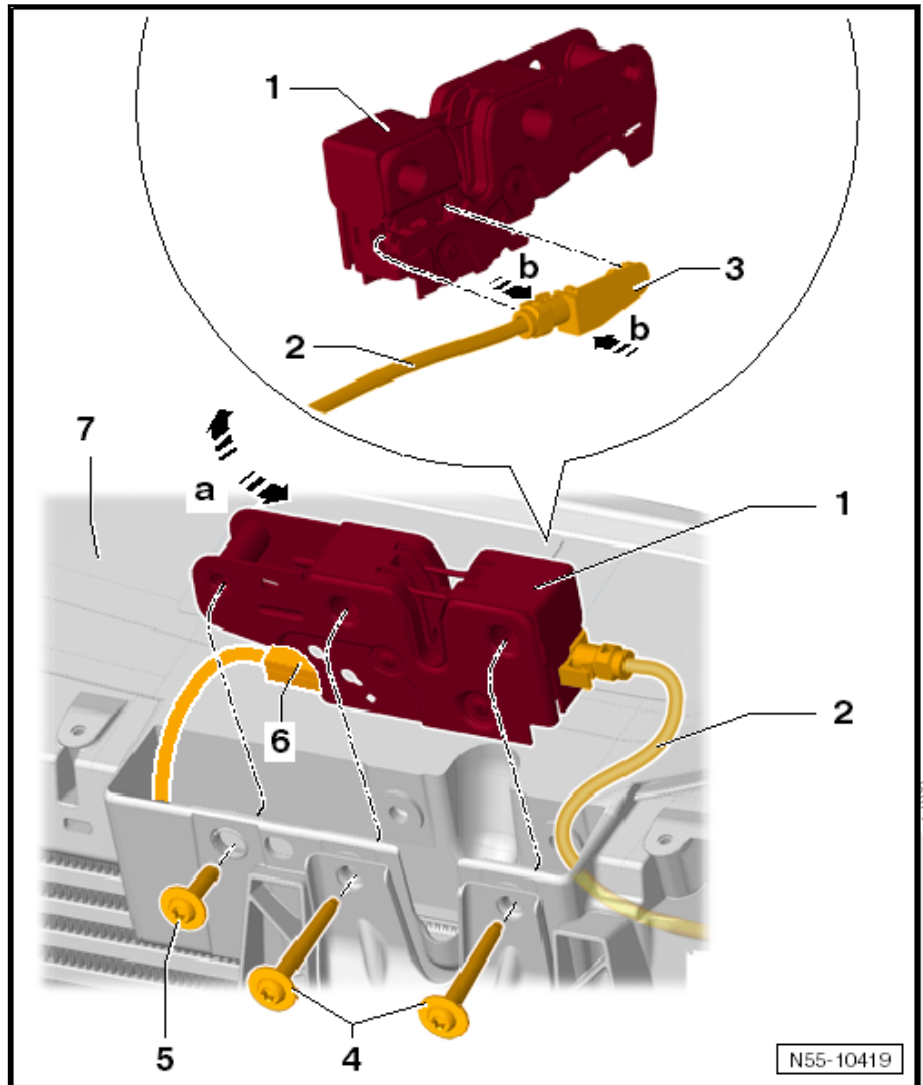




- Clip the bracket -3- into latch -1-.
- Slide the latch -1- far enough into the lock carrier -7- until the Engine Hood Contact Switch - F266- can be installed.
- Insert the Engine Hood Contact Switch - F266- -1- in the latch -2-.
- Slide the Engine Hood Contact Switch - F266- in the -direction of the arrow a- until the hooks -arrow b- engage.







- Slide the latch -1- completely into the lock carrier -7-.
- Tighten the latch bolts -4 and 5- to 12 Nm.
- Install the release cable -2- in the release cable coupling. Refer to [⇒ "1.11 Release Cable, Disconnecting", page 48](#).
- Adjust the latch. Refer to [⇒ "1.12.1 Latch, Adjusting", page 50](#).
- Before closing the hood, test the release lever and the release cable function.

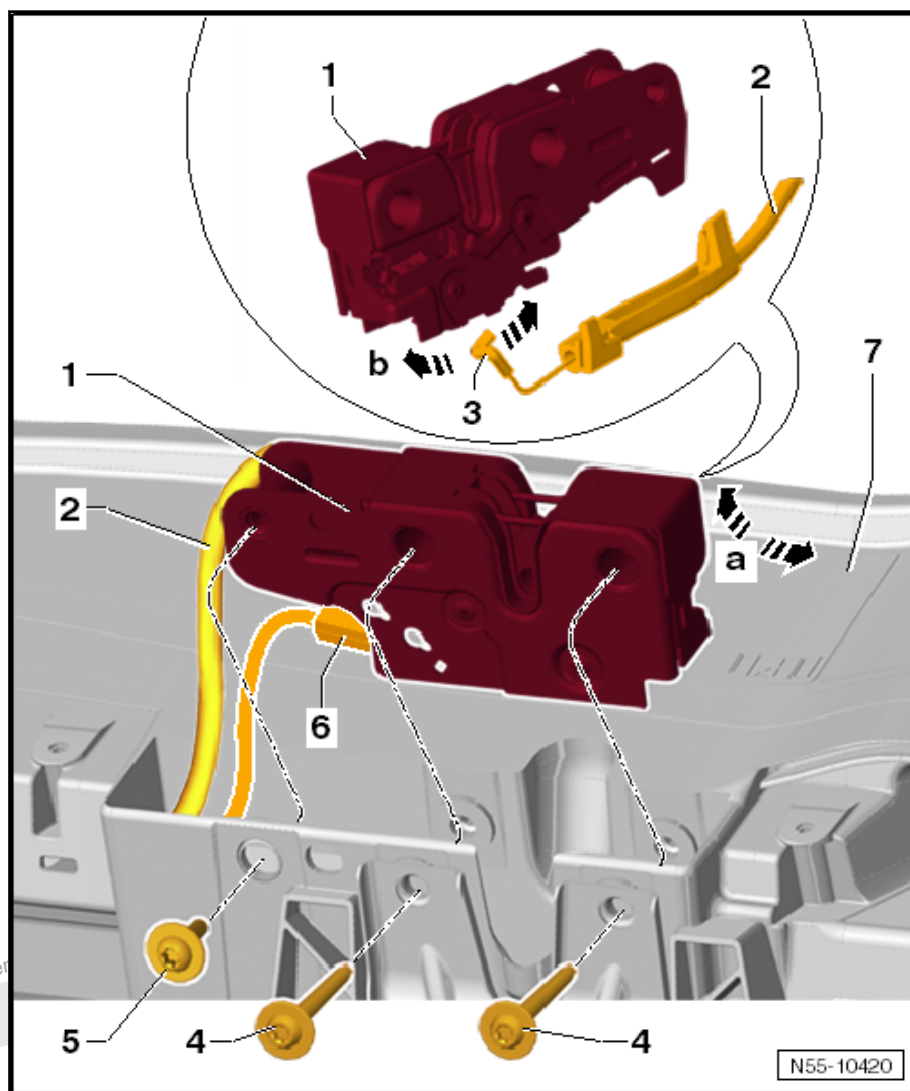
## 1.10 Lid Latch, Removing and Installing, RHD -- Not for North American Market

[⇒ "1.10.1 Removing", page 45](#)

[⇒ "1.10.2 Installing", page 47](#)

### 1.10.1 Removing





- Open the hood.
- Remove the radiator grille. Refer to [“4.2.1 Removing”, page 295](#).
- Detach the release cable. Refer to [“1.11 Release Cable, Disconnecting”, page 48](#).
- Disconnect the connector for the hood contact switch -6-.



#### Note

*The connector is secured above the right headlamp.*

- Remove the screws -4 and 5- on the lock carrier and remove the latch -1- -arrow a-.
- Unclip the release cable -2- from the latch -1-.
- Remove the release cable hook -3- from the latch -1- -arrow b-.

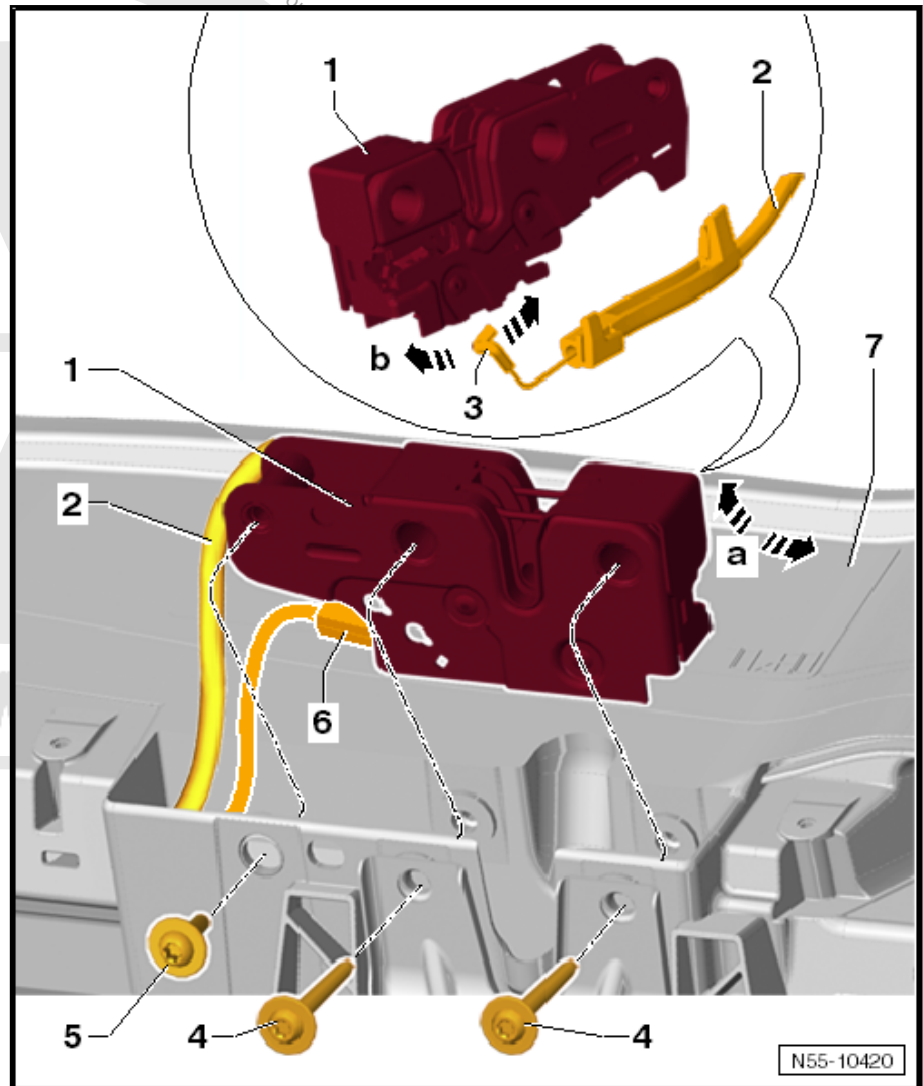




## Note

*Engine Hood Contact Switch, Removing and Installing at Latch. Refer to ➤ Electrical Equipment; Rep. Gr. 96 ; Engine Compartment Lamps and Switches, Engine Hood Contact Switch - F266-, Removing and Installing*

### 1.10.2 Installing



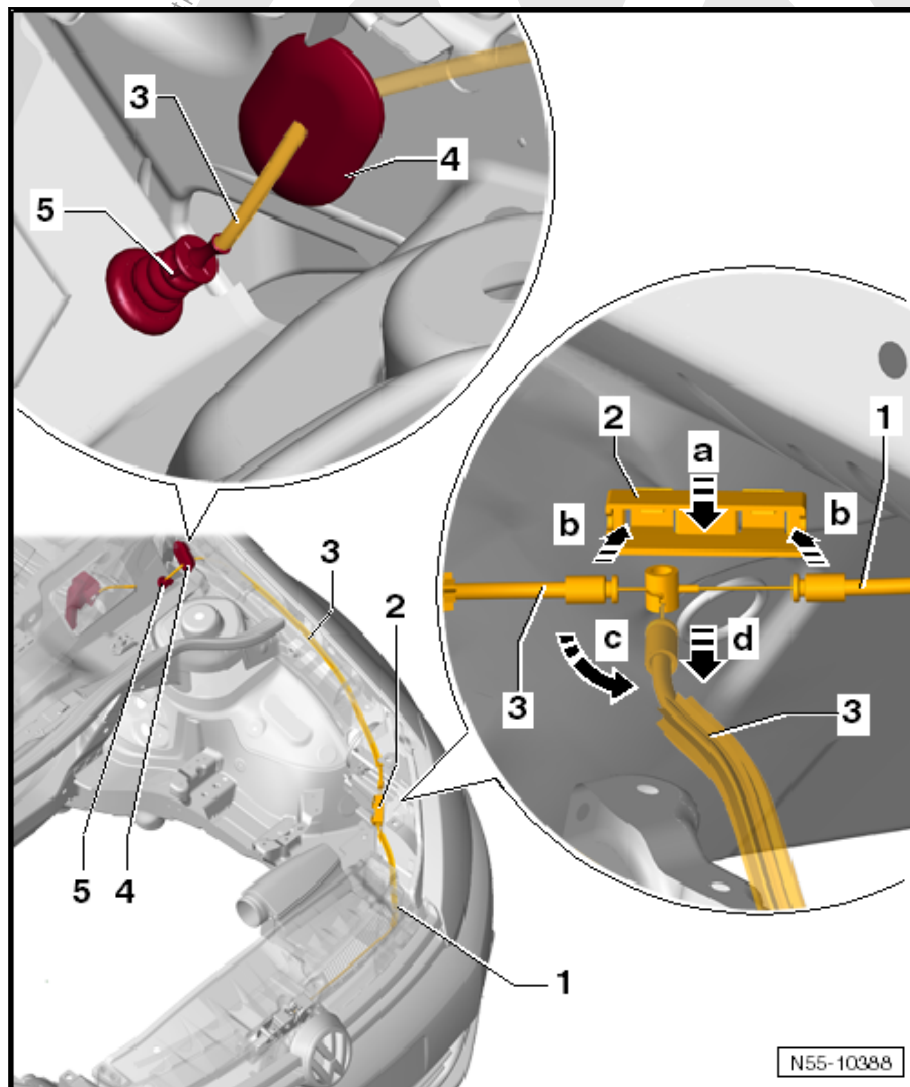
- Install the release cable hook -3- into the latch -1- -arrow b-.
- Clip the release cable -2- into latch -1-.
- Install the latch -1- in the lock carrier -arrow a-.
- Screw -4 and 5- tightening specification: 12 Nm.
- Connect the hood contact switch connector -6-.
- Install the release cable -2- in the release cable coupling.  
Refer to ➤ [“1.11 Release Cable, Disconnecting”, page 48](#) .
- Adjust the latch. Refer to ➤ [“1.12.1 Latch, Adjusting”, page 50](#) .





- Before closing the hood, test the release lever and the release cable function.

### 1.11 Release Cable, Disconnecting



- Open the hood.
- Unclip the cover for the release cable coupling -2- from the lock carrier -arrow a- above the headlamp on the driver side.
- Remove the release cables -1 and 3- from the cover -2- -arrow b-.
- Move the release cable -3- 90° -arrow c- and then remove it -3- in -direction of arrow d- out of the mount -1-.



#### Note

- ◆ Make sure the grommets -4 and 5- are secure when installing the release cable -3-.
- ◆ Make sure the cable coupling -2- is connected correctly when installing the release cable -1-.
- Before closing the hood, test the release lever and the release cable function.



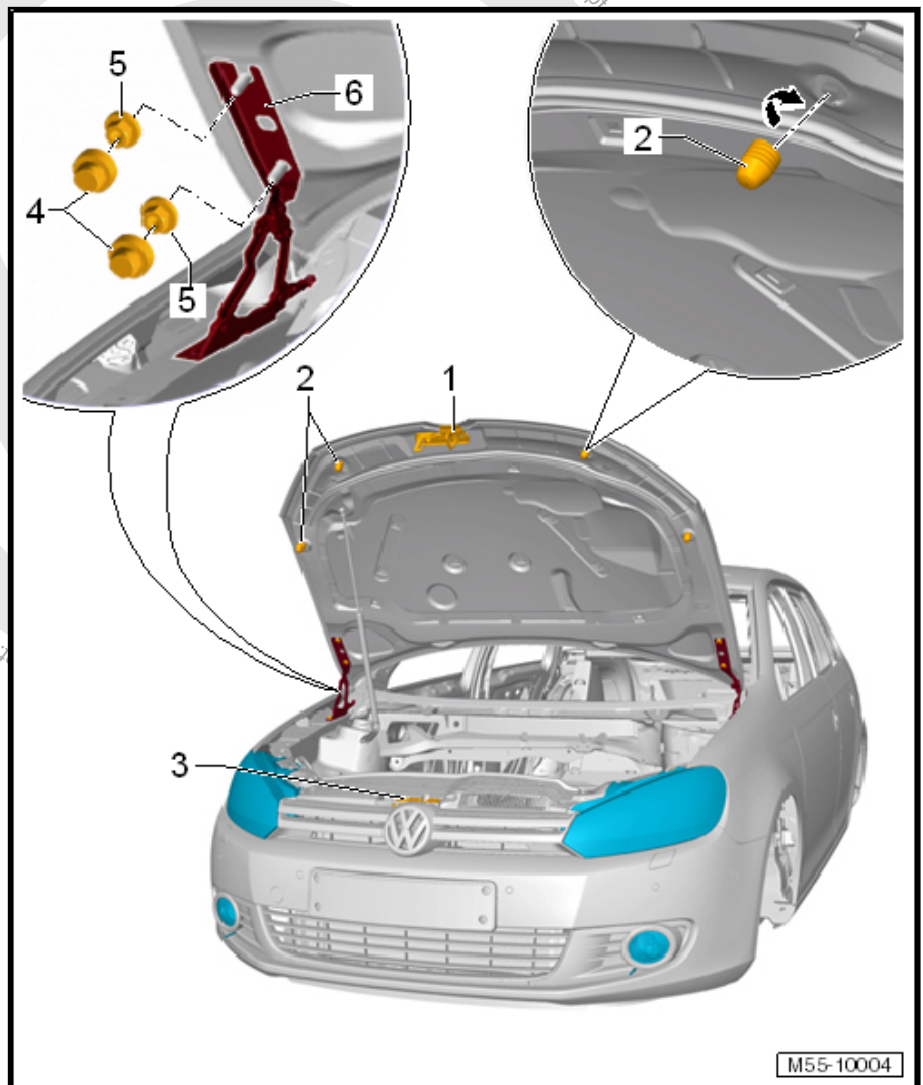
## 1.12 Hood, Adjusting

⇒ ["1.12.1 Latch, Adjusting", page 50](#)



### Note

- ◆ The vehicle must be on all four wheels when adjusting the hood.
- ◆ The left and right adjusting buffers -2- are not meant for adjusting. Their function is to stabilize and to cushion the hood.
- ◆ The hood is properly adjusted when there is an overall even gap dimension when closed, it is not too far inward or outward and contours align.
- ◆ The hood must engage into the latch without using much force.
- ◆ Do not remove the nuts. Only loosen them.



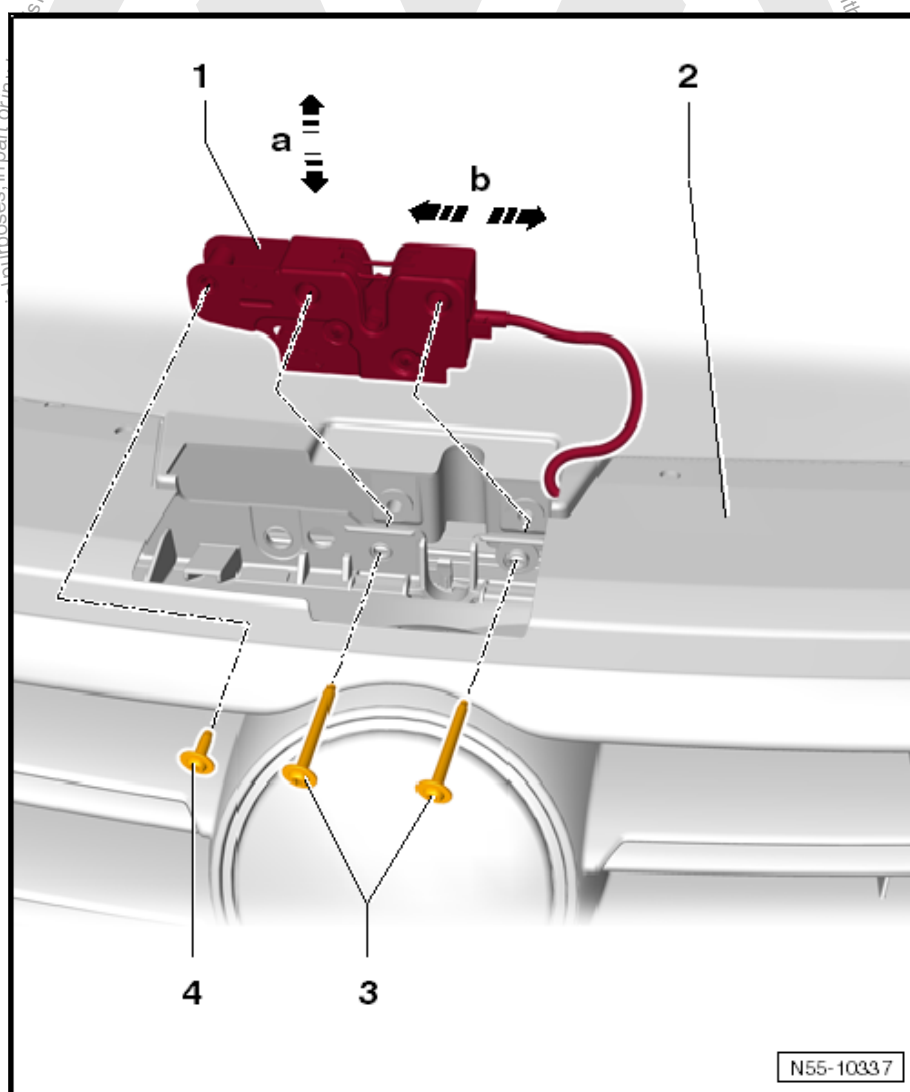
- Remove the catch -1-. Refer to ⇒ ["1.13 Striker, Removing and Installing", page 51](#).
- Loosen the left and right nuts -5- on the hinge -6- and then align the hood between the fenders. Do not remove the nuts.





- Make sure the gap dimensions are even. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Panel Gap Dimensions; Body Front .
- Apply corrosion protection to the hinge -6- and to the bolts -5- after adjusting.
- Turn the adjusting buffer -2- -arrow- to adjust.
- After adjusting the hood, install the striker -1- and adjust it. Refer to ⇒ ["1.13 Striker, Removing and Installing", page 51](#) .
- The hood in the front area can be adjusted to the height of the fenders using the latch -3- Refer to ⇒ ["1.12.1 Latch, Adjusting", page 50](#) .

### 1.12.1 Latch, Adjusting

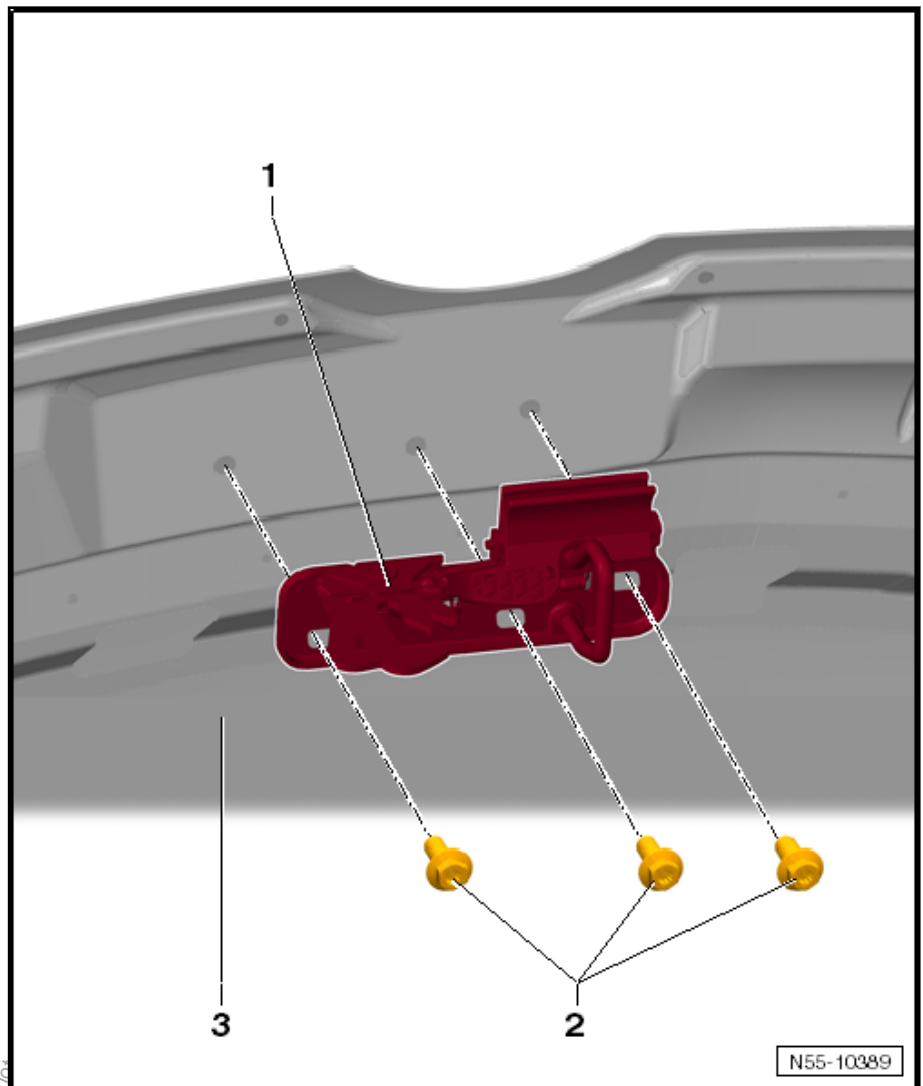


- Remove the radiator grille -2-. Refer to ⇒ ["4.2.1 Removing", page 295](#) .
- The gap dimensions -arrow b- and the height of the hood -arrow a- can be corrected or adjusted by loosening the bolts -3 and 4- and sliding the catch -1-. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Gap Dimensions; Body Front .



- Tightening specification for bolts -3 and 4-: 12 Nm.

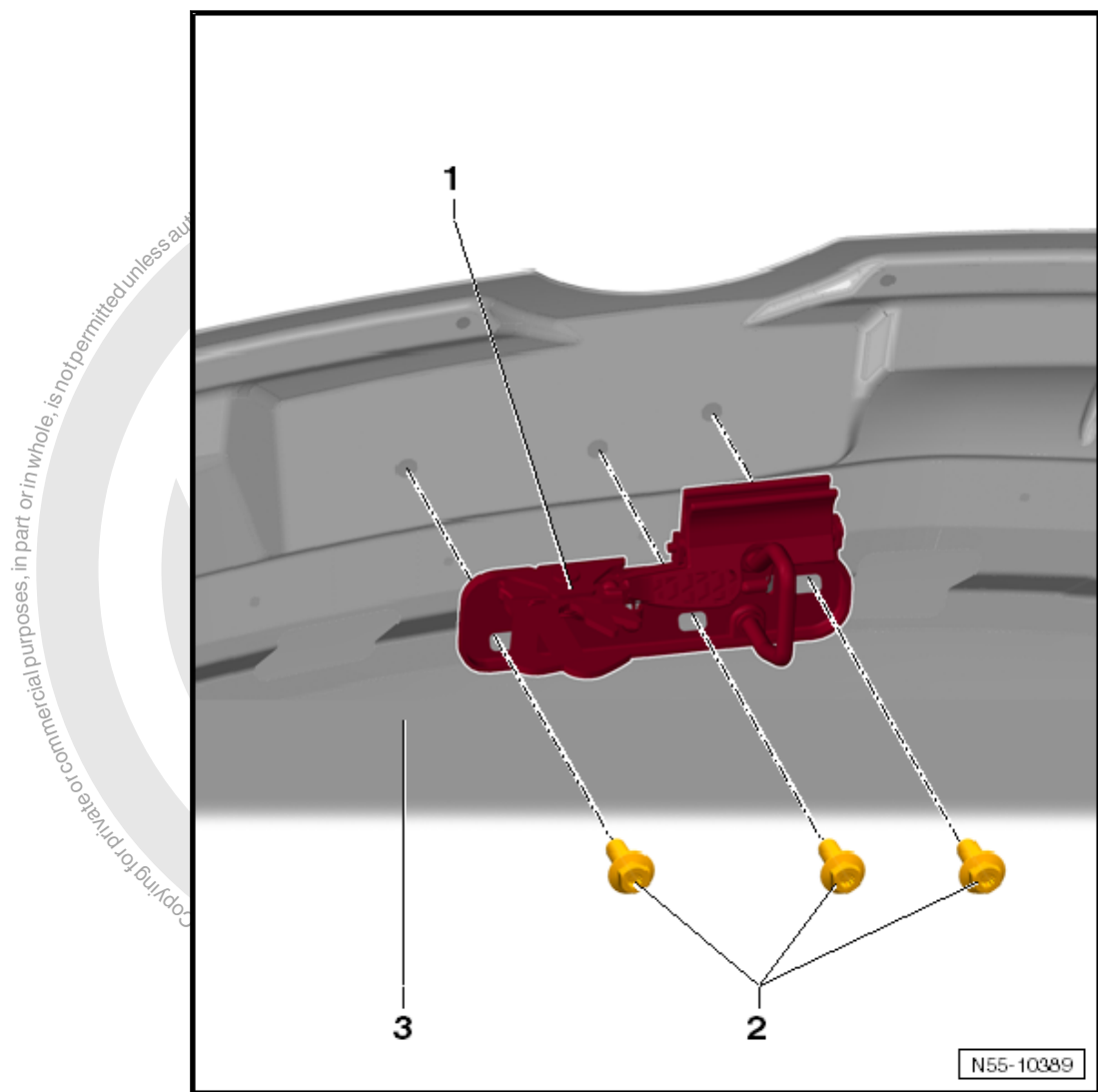
### 1.13 Striker, Removing and Installing



- Remove the screws -2-.
- Remove the striker -1- from the hood -3-.
- Tightening specification for bolts -2-: 10 Nm.
- Adjust the striker and the latch. Refer to [⇒ "1.12.1 Latch, Adjusting", page 50](#).

### 1.14 Striker, Adjusting





- Loosen the bolts -2-.
- The striker -1- can now be adjusted in the oversized holes.
- Tightening specification for bolts -2-: 10 Nm.

## 1.15 Release Lever, Removing and Installing

⇒ ["1.15.1 Removing", page 52](#)

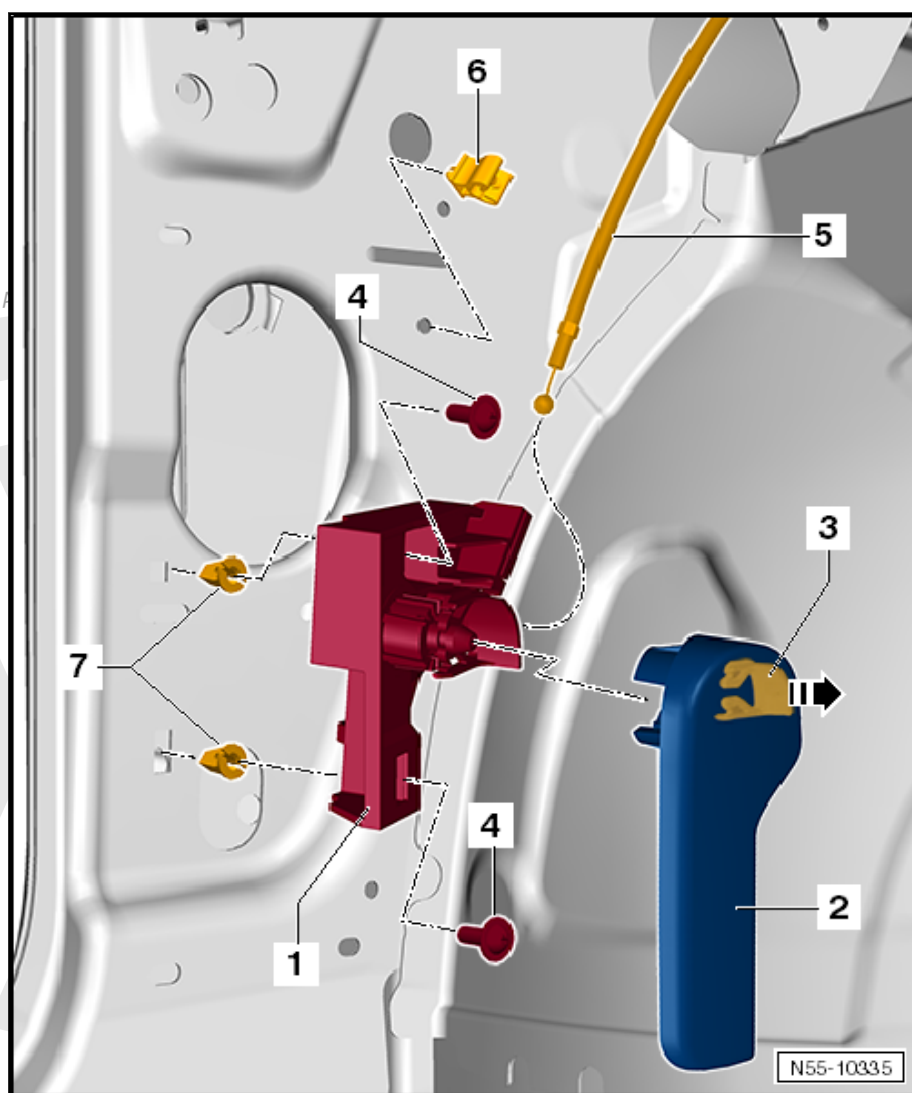
⇒ ["1.15.2 Installing", page 53](#)

### 1.15.1 Removing









- Slide the clip -3- completely into operating lever -2-.
- Then push operating lever -2- onto mount in the mounting bracket -1- and lock the operating lever.
- Before closing the hood, test the release lever and the release cable function.





## 2 Rear Lid

- ⇒ [“2.1 Tools”, page 55](#)
- ⇒ [“2.2 Overview - Rear Lid”, page 55](#)
- ⇒ [“2.3 Rear Lid, Removing and Installing”, page 57](#)
- ⇒ [“2.4 Gas-Filled Strut, Removing and Installing”, page 58](#)
- ⇒ [“2.5 Gas-Filled Strut, Venting”, page 60](#)
- ⇒ [“2.6 Rear Lid Hinge, Removing and Installing”, page 60](#)
- ⇒ [“2.7 Rear Lid, Adjusting”, page 63](#)
- ⇒ [“2.8 Rear Lid Handle Unlock Switch, Removing and Installing”, page 65](#)
- ⇒ [“2.9 Latch, Removing and Installing”, page 66](#)
- ⇒ [“2.10 Striker, Removing and Installing”, page 68](#)
- ⇒ [“2.11 Rear Lid Seal”, page 69](#)
- ⇒ [“2.12 Rear Lid Seal, Removing and Installing”, page 70](#)

### 2.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-

V.A.G 1331



W00-0427

- ◆ Gauge - Gap Adjustment - 3371-

3371



W00-0190

### 2.2 Overview - Rear Lid



## 1 - Rear Lid

- ❑ Removing and Installing. Refer to ⇒ ["2.3 Rear Lid, Removing and Installing", page 57](#).
- ❑ Adjusting. Refer to ⇒ ["2.7 Rear Lid, Adjusting", page 63](#).

## 2 - Latch

- ❑ Removing and Installing. Refer to ⇒ ["2.9 Latch, Removing and Installing", page 66](#).

## 3 - Stop

## 4 - Striker

- ❑ Removing and Installing. Refer to ⇒ ["2.10 Striker, Removing and Installing", page 68](#).
- ❑ Adjusting. Refer to ⇒ ["2.7.1 Striker, Adjusting", page 64](#).

## 5 - Hinges

- ❑ Removing and Installing. Refer to ⇒ ["2.6 Rear Lid Hinge, Removing and Installing", page 60](#).

## 6 - Gas-Filled Strut

- ❑ Removing and Installing. Refer to ⇒ ["2.4 Gas-Filled Strut, Removing and Installing", page 58](#).
- ❑ Venting. Refer to ⇒ ["2.5 Gas-Filled Strut, Venting", page 60](#).

## 7 - Adjusting Buffer

- ❑ Left and right
- ❑ Adjusting. Refer to ⇒ ["2.7.2 Adjusting Buffer, Adjusting", page 64](#).

## 8 - Wiring Harness

## 9 - Rear Lid Release Button

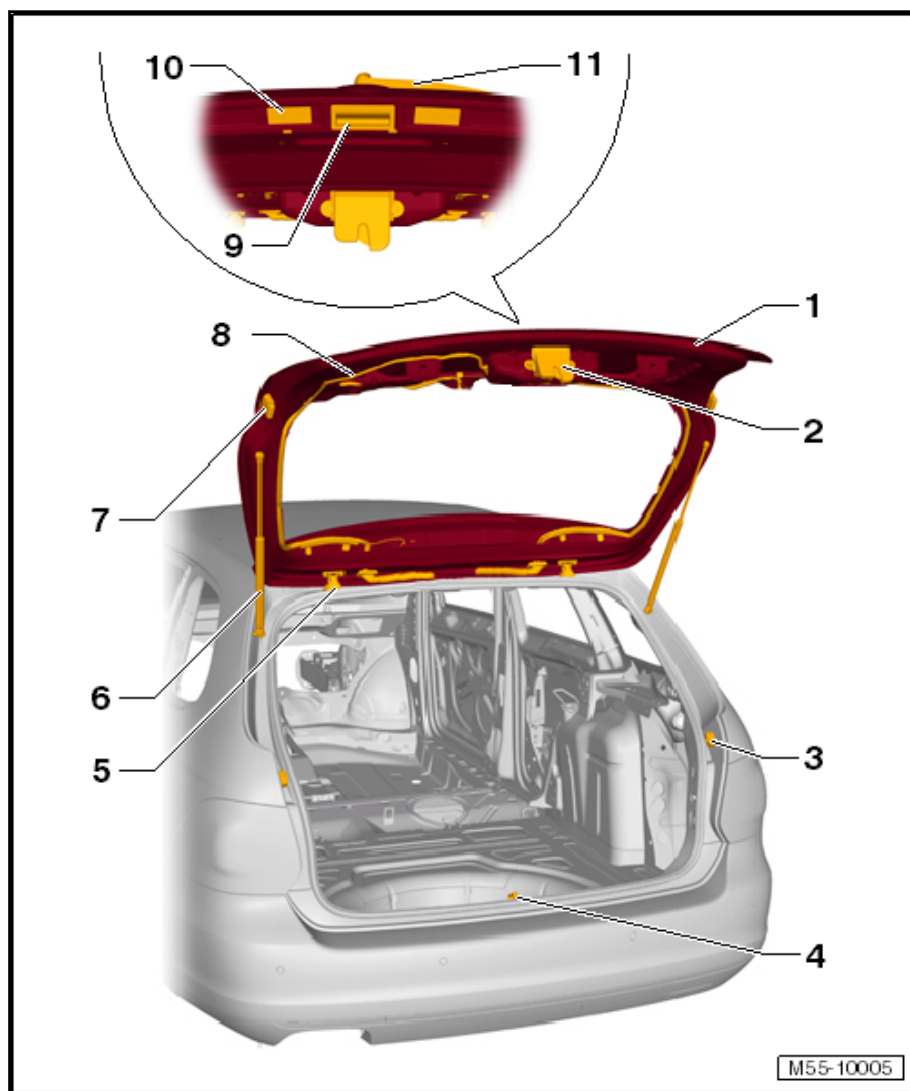
- ❑ Removing and Installing. Refer to ⇒ ["2.8 Rear Lid Handle Unlock Switch, Removing and Installing", page 65](#).

## 10 - License Plate Lamp

- ❑ Removing and installing. Refer to ⇒ Electrical System; Rep. Gr. 94 ; Exterior Lights, Lamps, Switches.

## 11 - Rear Window Wiper

- ❑ Removing and installing. Refer to ⇒ Electrical System; Rep. Gr. 92 ; Windshield Wiper and Washer System.



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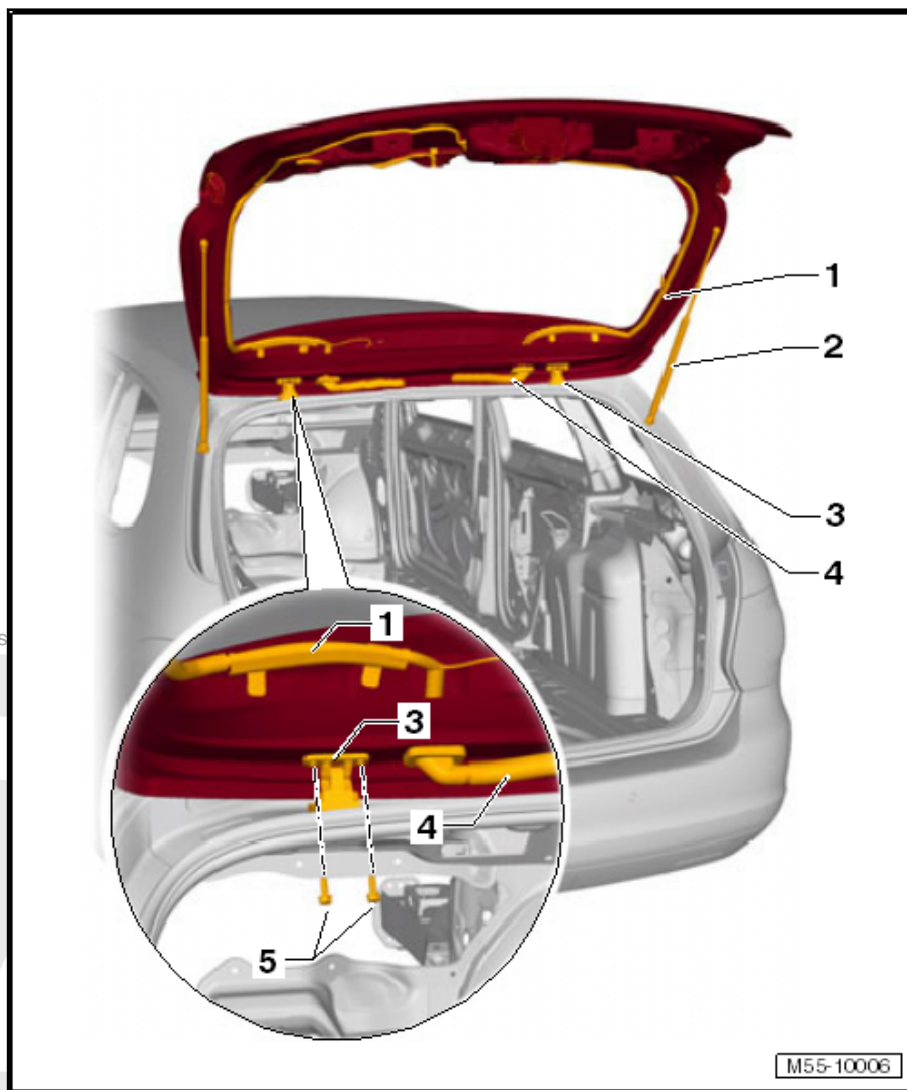


## 2.3 Rear Lid, Removing and Installing

⇒ ["2.3.1 Removing", page 57](#)

⇒ ["2.3.2 Installing", page 58](#)

### 2.3.1 Removing



- Remove the rear lid trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation; Rear Lid Trim Panel .
- Remove the rear lid window frame trim. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim and Insulation; Rear Lid Trim Panel .
- Disconnect the connectors from the installed electrical components.
- Loosen the left and right boot -4- and guide the wires -1- through the opening and out of the rear lid.
- Loosen the hex nuts -5- on the left and right hinges -3- but do not remove the nuts.

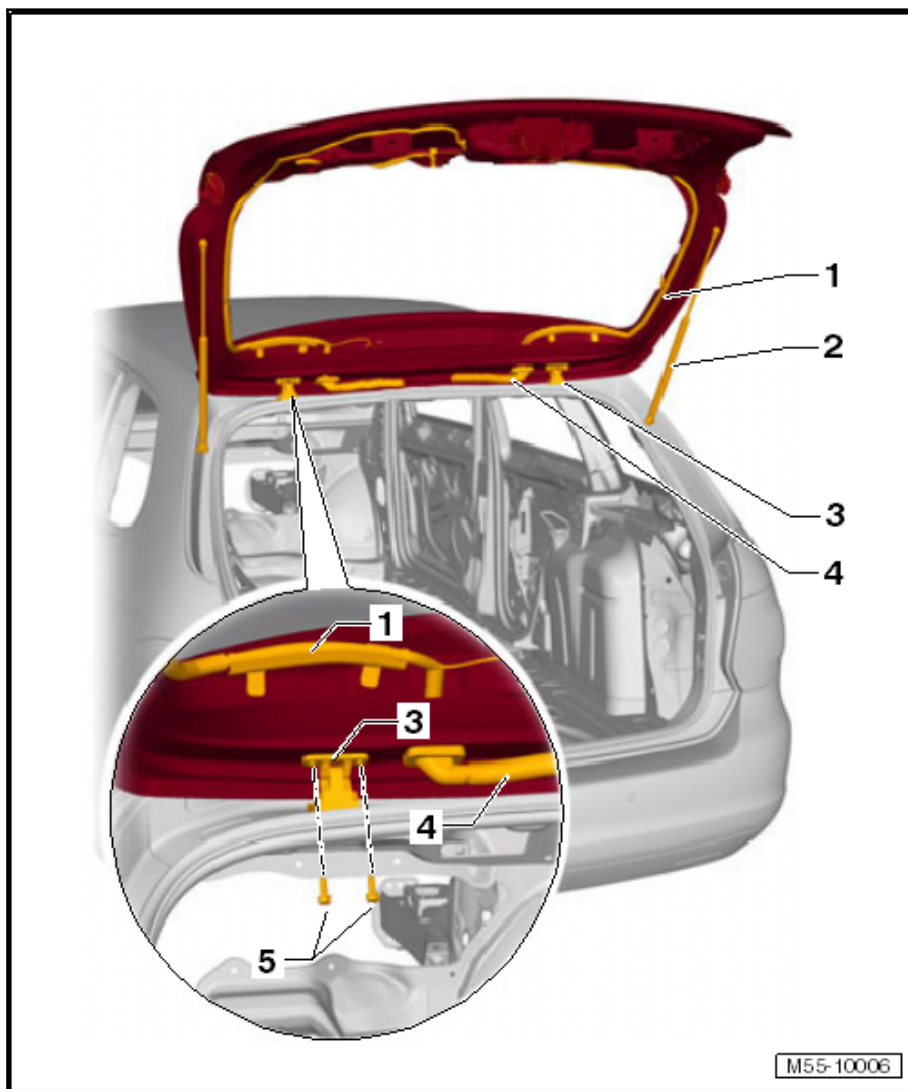
A second technician is required for the rest of the removal procedure.





- Remove the gas-filled strut -2-. Refer to ⇒ [“2.4 Gas-Filled Strut, Removing and Installing”, page 58](#).
- Remove the bolts -5- and the rear lid.

### 2.3.2 Installing



Install the rear lid -1- in reverse order of removal.

- Tightening specification for bolts -5-: 10 Nm.
- Adjust the rear lid. Refer to ⇒ [“2.7 Rear Lid, Adjusting”, page 63](#).
- Perform a function test on the unlocking components before closing the rear lid.

### 2.4 Gas-Filled Strut, Removing and Installing



#### Note

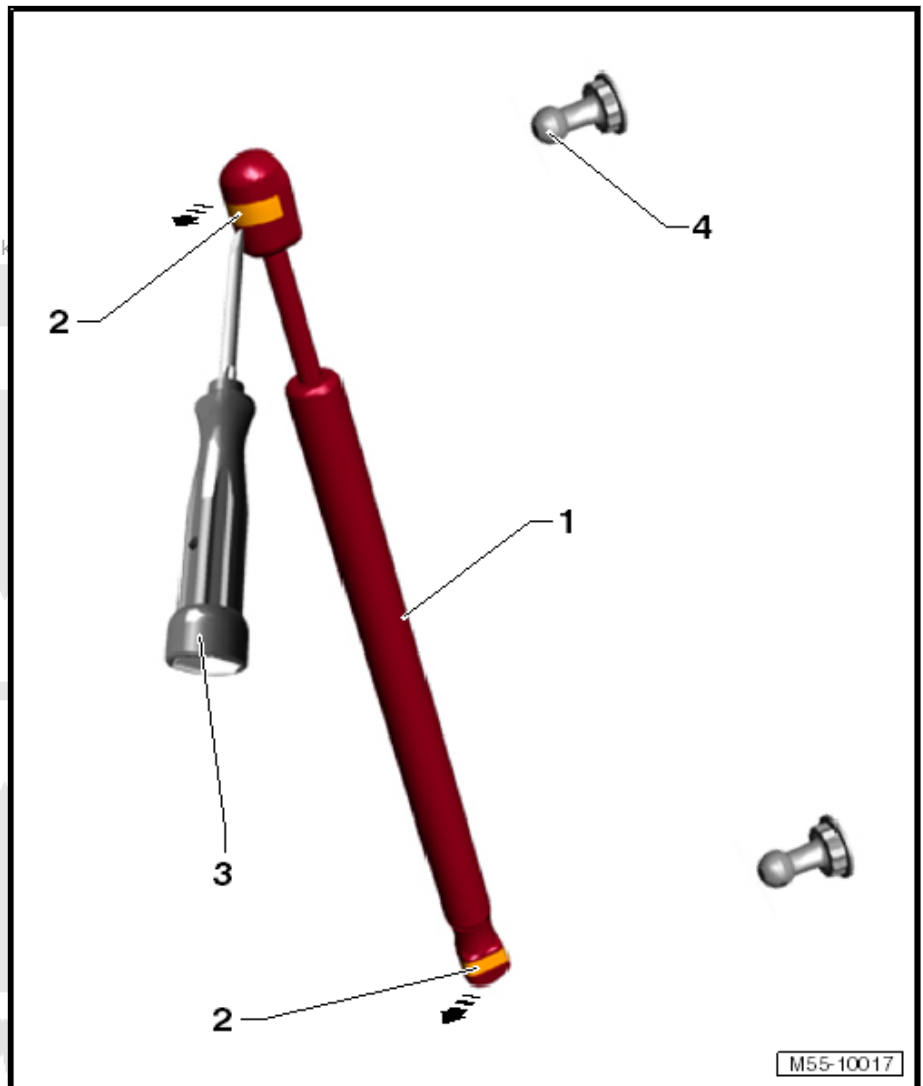
*It is necessary to support the rear lid when removing the gas-filled strut. One gas-filled strut alone cannot hold the rear lid open.*





#### WARNING

*Be careful when reusing the gas strut. Do not pry the spring clip completely out of the ball socket or the spring clip will be damaged. The gas-filled strut will spring out of the mount, resulting in damage or injury to the technician.*



#### Gas-Filled Strut

- Open and support the rear lid.
- Insert a small screwdriver -3- under the spring clips -2-.
- Lift the spring clips -2- just far enough so it is possible to slide them over the ball sockets.
- Remove the gas-filled strut -1- from the ball stud -4-.

Slide the spring clips -2- back on immediately after removing the gas-filled strut.





#### WARNING

*Be careful when reusing the gas strut. Do not pry the spring clip completely out of the ball socket or the spring clip will be damaged. The gas-filled strut will spring out of the mount, resulting in damage or injury to the technician.*



#### Note

*Tightening specification for the ball stud -4-: 20 Nm + 90°*

- Vent the gas-filled strut. Refer to ⇒ [“2.5 Gas-Filled Strut, Venting”, page 60](#).

## 2.5 Gas-Filled Strut, Venting

- Clamp the gas-filled strut in the vise in the area x = 50 mm.



#### WARNING

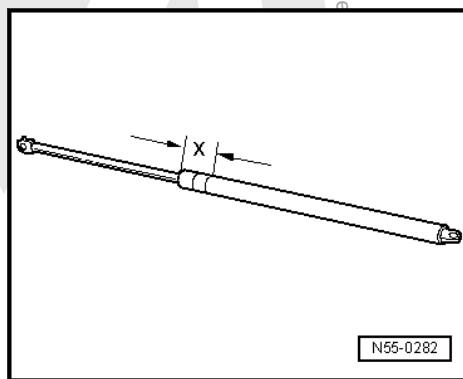
*Only clamp the gas-filled strut in area -x-. Otherwise, an accident may occur.*

- Cut open the gas-filled strut cylinder within the first third of the total cylinder length from the edge on the piston rod side.



#### Note

- ◆ Always wear eye protection when sawing.
- ◆ Cover the area of the sawed portion with a clean cloth.
- ◆ Dispose of the oil and cleaning cloths properly.



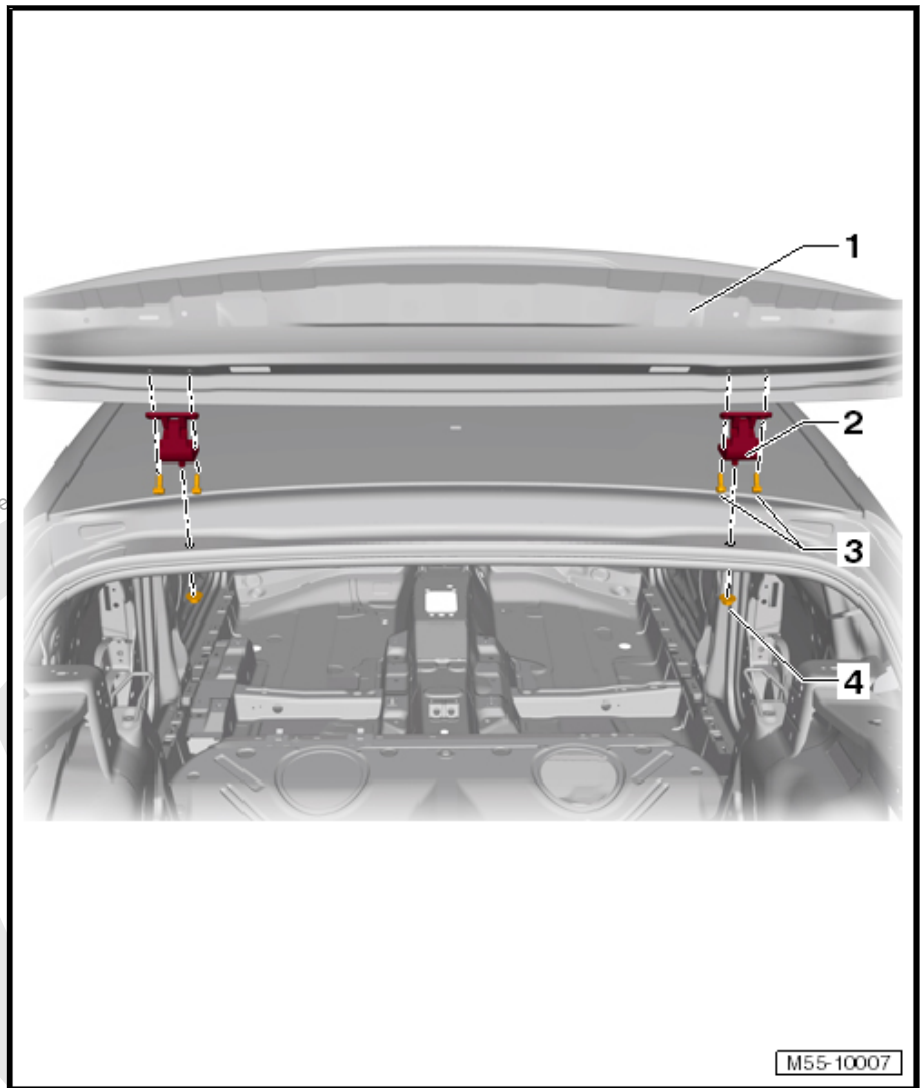
## 2.6 Rear Lid Hinge, Removing and Installing

⇒ [“2.6.1 Removing”, page 60](#)

⇒ [“2.6.2 Installing”, page 61](#)

### 2.6.1 Removing

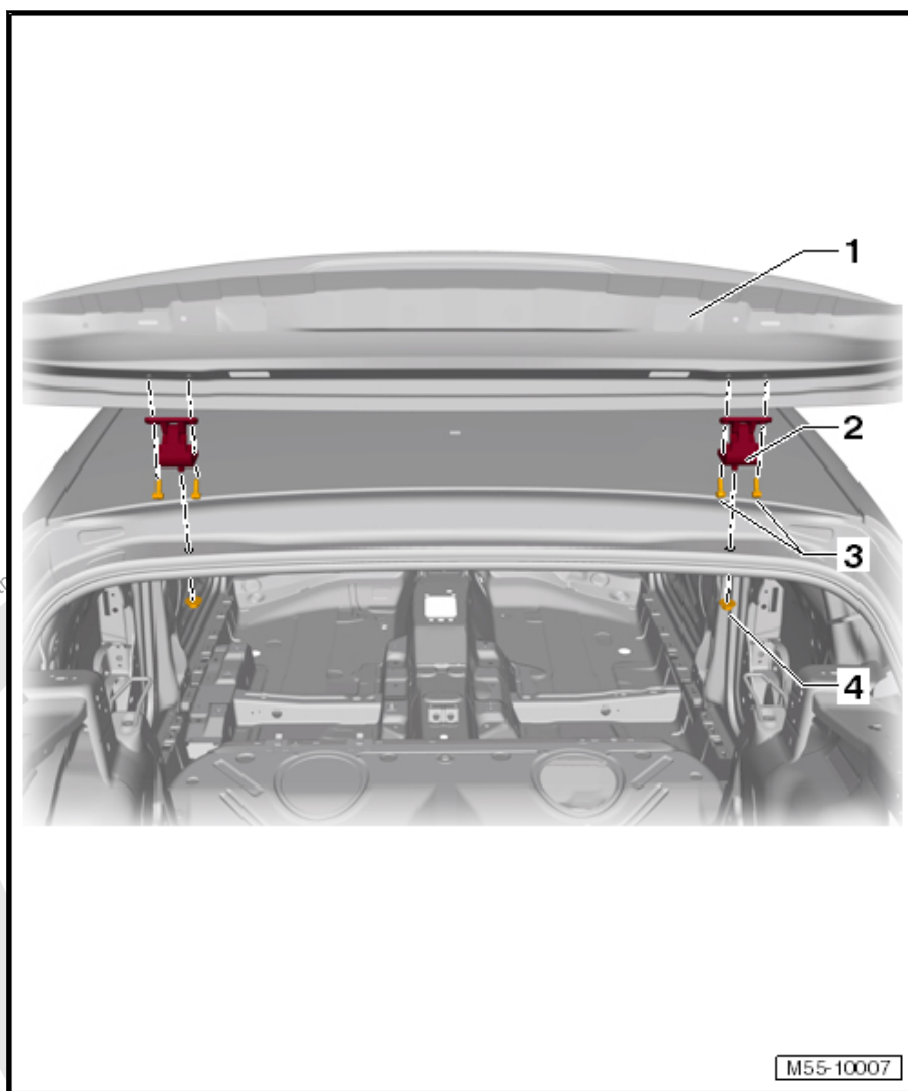




- Remove the roof end strip. Refer to ➤ Body Interior; Rep. Gr. 70 ; Trim Panels, Noise Insulation .
- Remove the rear lid -1-. Refer to ➤ [“2.3.1 Removing”](#); page [57](#) .
- Remove the nuts -4- and the hinges -2-

## 2.6.2 Installing





The installation of the hinge -1- takes place in reverse order.

- Nut tightening specification -4-: 24 Nm
- Make sure the hinge fits securely to the body.
- Install the rear lid. Refer to [⇒ "2.3.2 Installing", page 58](#)
- Install the roof end strip. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels, Noise Insulation .



## 2.7 Rear Lid, Adjusting

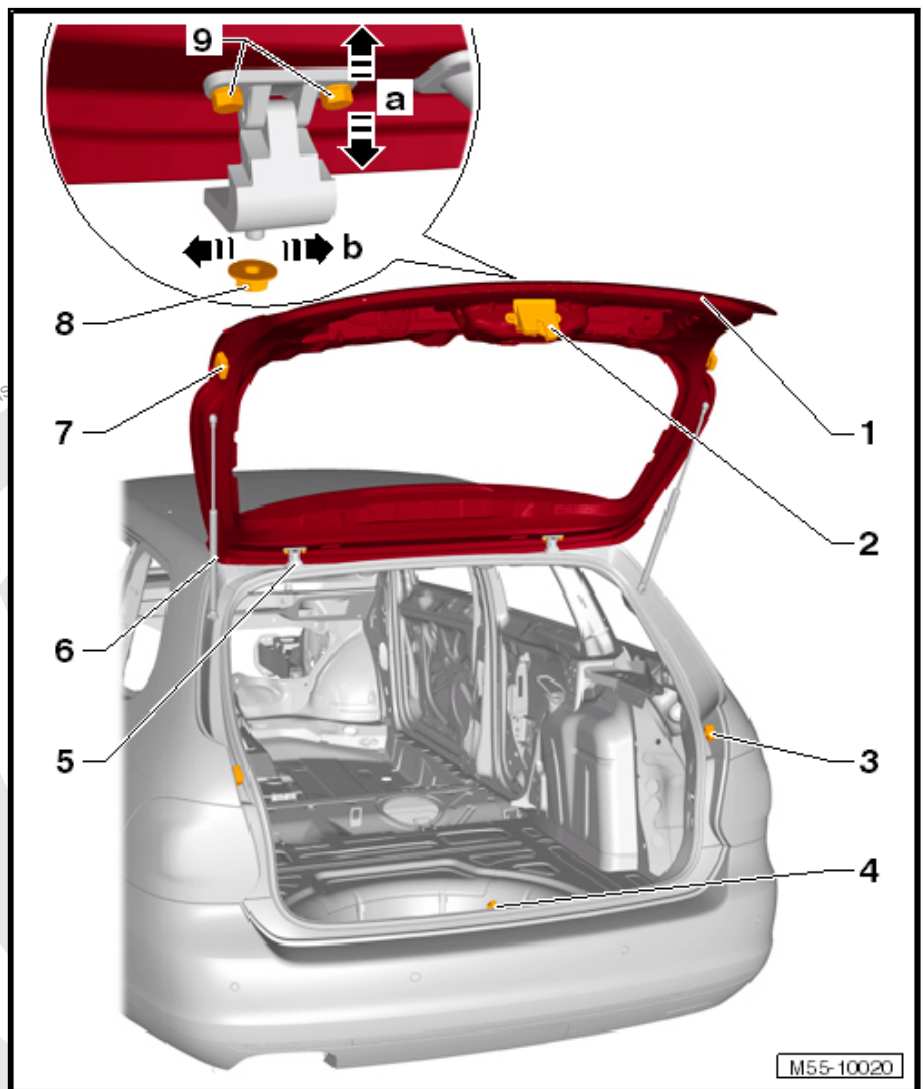
⇒ [“2.7.1 Striker, Adjusting”, page 64](#)

⇒ [“2.7.2 Adjusting Buffer, Adjusting”, page 64](#)



### Note

- ◆ The vehicle must be on all four wheels when adjusting the rear lid.
- ◆ The latch -2- is bolted directly to the rear lid -1-. It does not have any oblong holes so it cannot be adjusted.
- ◆ The left and right adjusting buffers -4- are not meant for adjusting. Their function is to stabilize and to cushion the rear lid -1-.
- ◆ The rear lid is properly adjusted when there is an overall even gap dimension when closed, it is not too far inward or outward and contours align.
- ◆ The rear lid must engage in the catch -5- without great force.



To adjust or check the gap dimensions, use Gauge - Gap Adjustment - 3371-. Refer to ⇒ Body Repair; Rep. Gr. 00; Technical Data; Body Gap Dimensions; Body Rear





- The rear lid -1- can be adjusted in the oversize holes on the hinge -arrows a and b- by loosening the nuts -8- and the bolts -9-.

Bolt tightening specification -9-: 10 Nm.

Nut tightening specification -8-: 24 Nm.

- Adjust the left and right adjusting buffers -3-. Refer to ⇒ [“2.7.2 Adjusting Buffer, Adjusting”, page 64](#) .
- Adjust the rear lid -1- on the rear lid catch -4-. Refer to ⇒ [“2.7.1 Striker, Adjusting”, page 64](#) .



#### Note

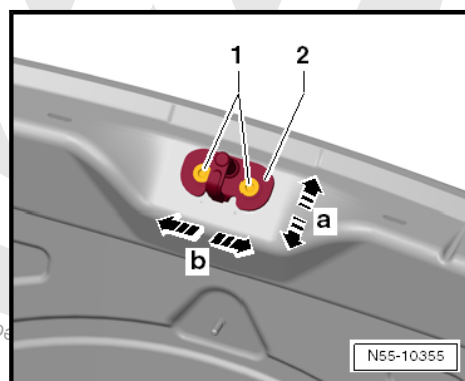
- ◆ After adjusting, apply corrosion protection to the hinge and bolts.
- ◆ The rear lid latch -2- cannot be adjusted.

## 2.7.1 Striker, Adjusting



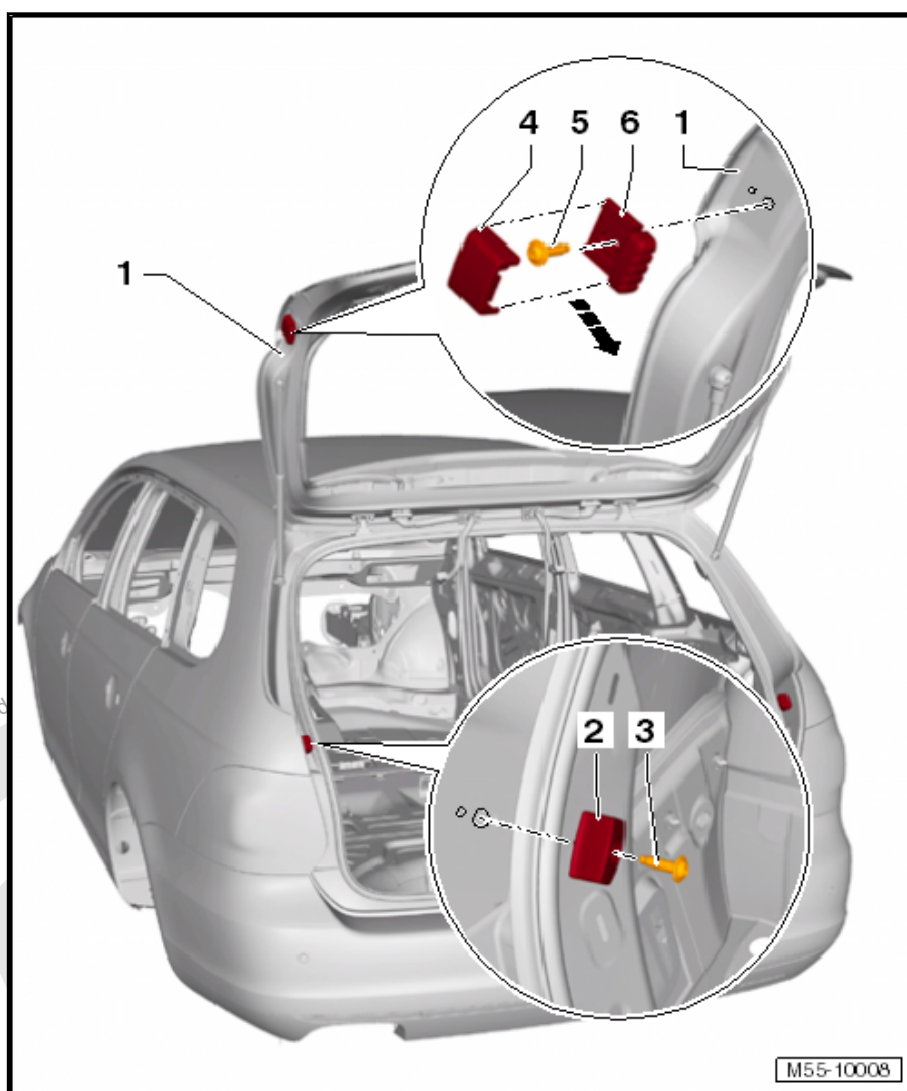
#### Note

- ◆ Loosen the bolts -1- and slide the rear lid catch -2- in the oversized holes -arrows a and b-.
- ◆ Adjust latch bracket -2- so that recess of rear lid lock with detent engages at center on latch bracket -2-.
- Remove the lock carrier cover. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim; Lock Carrier Cover, Removing and Installing .
- Loosen the bolts -1-.
- Set the catch -2- into the upper position and tighten the bolts -1-.
- Close the rear lid and check adjustment.
- Bolt tightening specifications -1-: 23 Nm.



## 2.7.2 Adjusting Buffer, Adjusting





- Tighten the stop -2-, bolt tightening specification -3-: 10 Nm.
- Remove the cover -4- from the adjusting buffer.
- Loosen the bolt -5- on the adjusting buffer -6- slightly until the buffer can slide into the stop -direction of arrow-.
- Close rear lid to initial locking position -1- using light pressure over center.
- Open the rear lid again.
- Tighten the bolt -5-, tightening specification: 10 Nm.
- Press the cover -4- onto the adjusting buffer.

## 2.8 Rear Lid Handle Unlock Switch, Removing and Installing

⇒ [“2.8.1 Removing”, page 65](#)

⇒ [“2.8.2 Installing”, page 66](#)

### 2.8.1 Removing

- Remove the rear lid trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Rear Lid Trim Panels .





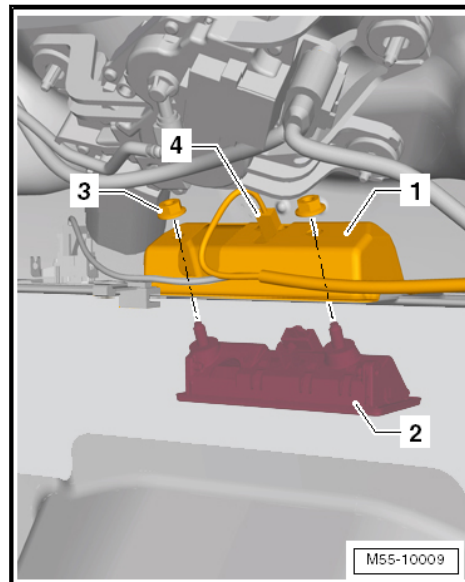
#### Vehicles with rearview camera system:

- Remove the switch with the rearview camera. Refer to  
⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lights,  
Switches and Lamps .

#### Vehicles without rearview camera system:

- Disconnect the connector -4- on the switch connection -2-.
- Remove the two nuts -3- from the switch threaded pin and  
remove the cover piece -1- upward.
- Remove the button -2- from the rear lid.

In case of an electrical malfunction, the rear lid can be opened  
at the latch emergency release. Refer to ⇒ [“2.9 Latch, Re-  
moving and Installing”, page 66](#) . The emergency release is  
reached through an opening in the rear lid trim panel.



## 2.8.2 Installing

Install in reverse order of removal.

Nut tightening specification: 6 Nm

- Perform a function test on the unlocking components before  
closing the rear lid.

## 2.9 Latch, Removing and Installing

⇒ [“2.9.1 Removing”, page 66](#)

⇒ [“2.9.2 Installing”, page 67](#)

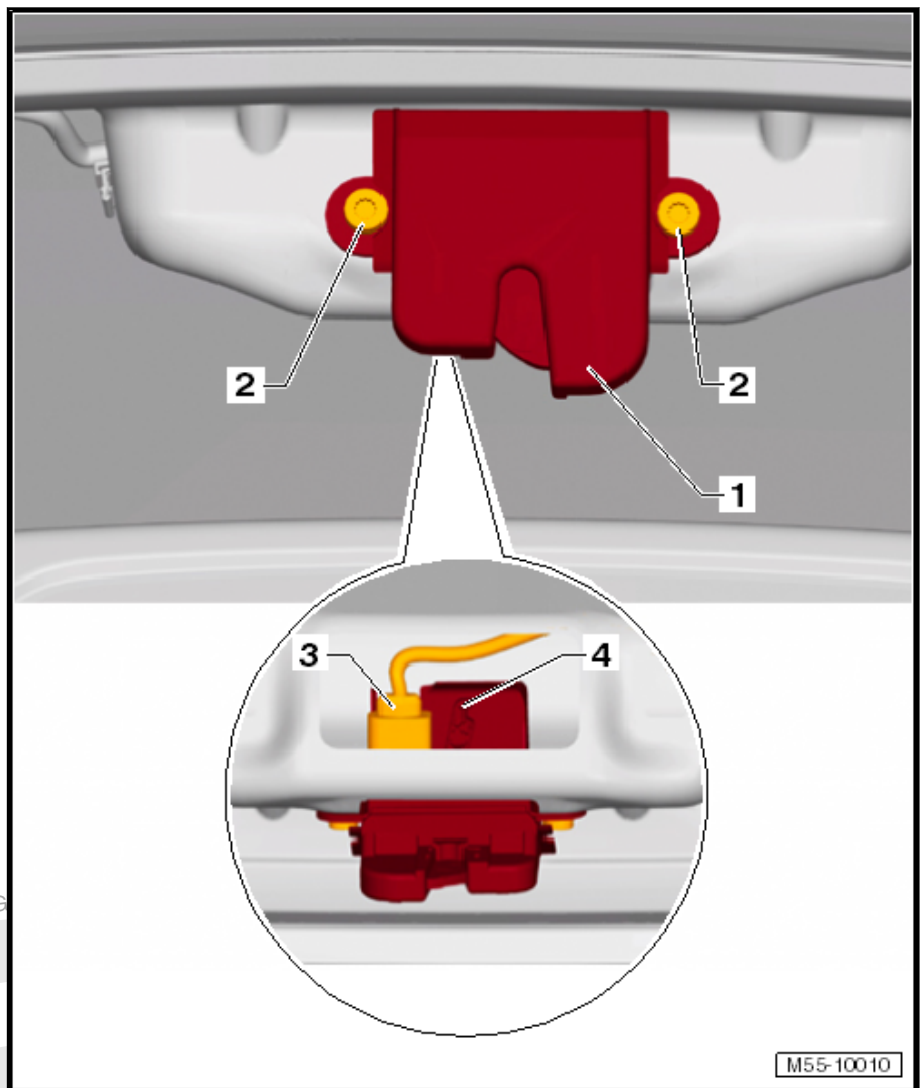
### 2.9.1 Removing



#### Note

*If the rear lid does not open, use the emergency release -4- through the rear lid trim panel to open it  
manually. Refer to the ⇒ Owner's Manual .*

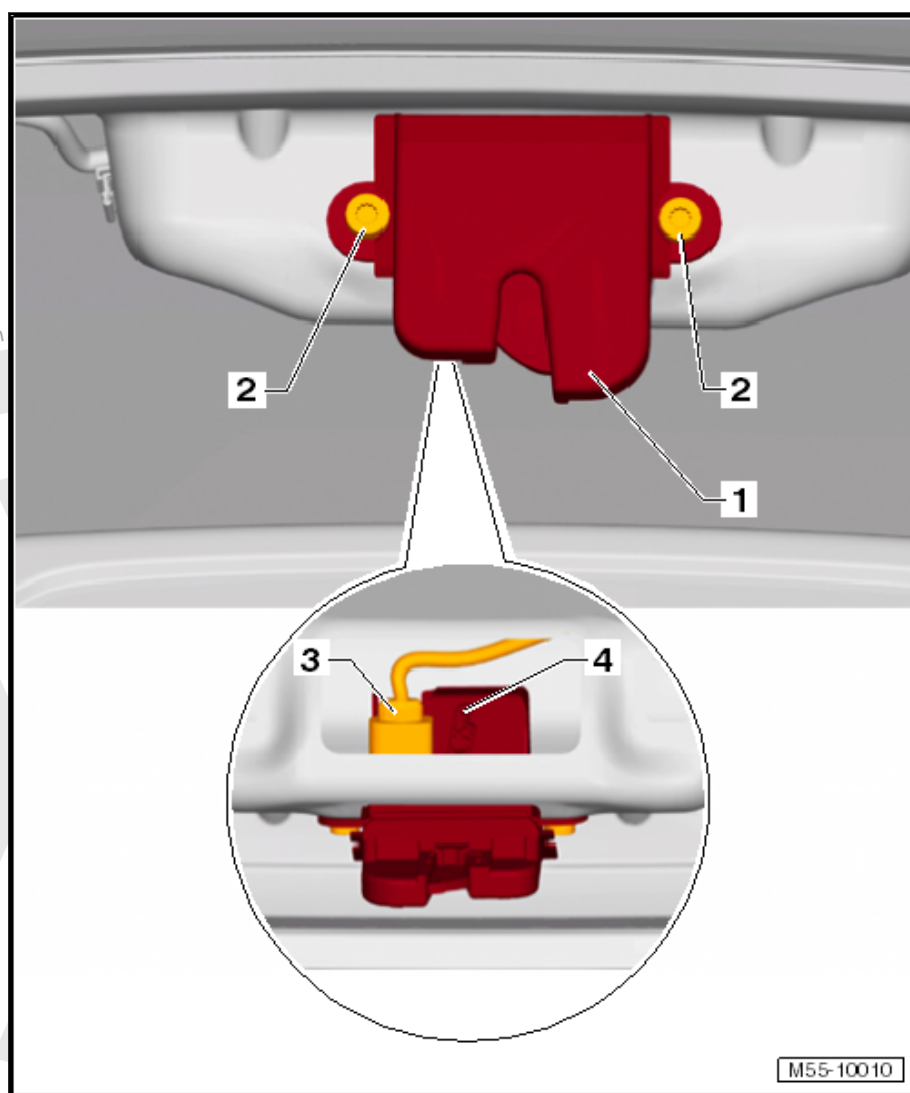




- Remove the rear lid trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation; Rear Lid Trim Panel .
- Disconnect the connector -3-.
- Remove the screws -2- and remove rear lid latch -1- from rear lid.

## 2.9.2 Installing





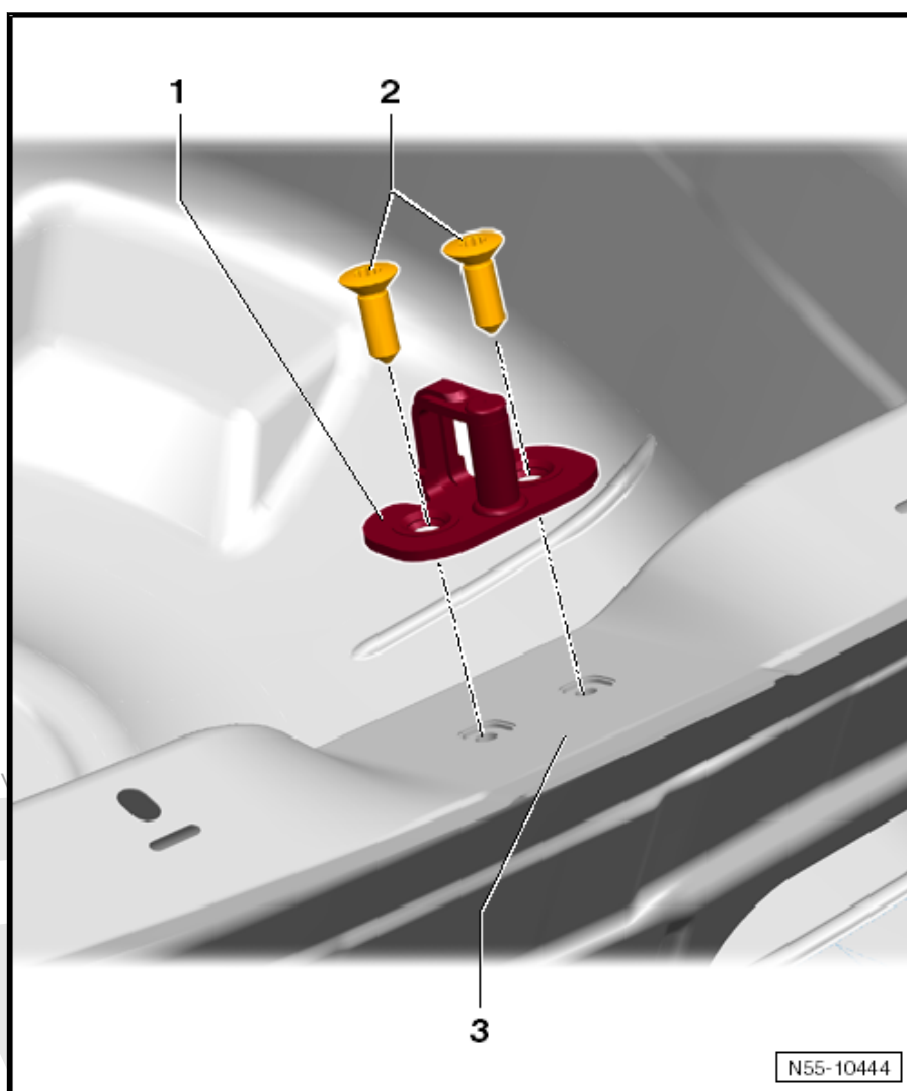
- Position the rear lid latch -1- on the rear lid and install the screws -2-.
- Bolt -2- tightening specification: 24 Nm.
- Connect the connector -3- to the lid latch -1-.

Perform the rest of the installation in the reverse order of removal.

- Perform a function test on the unlocking components before closing the rear lid.

## 2.10 Striker, Removing and Installing





### Removing

- Remove the lock carrier cover. Refer to ➤ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim; Lock Carrier Cover, Removing and Installing .
- Remove screws -2- and remove the catch -1-.

### Installing

- Install the catch -1- on the lock carrier -3-.
- Bolt tightening specifications -2-: 24 Nm.
- Adjust the striker. Refer to ➤ [“2.7.1 Striker, Adjusting”, page 64](#)

## 2.11 Rear Lid Seal

The seal on the rear lid is equipped at the factory with a sealant, applied to body flange and then rolled on.





#### Note

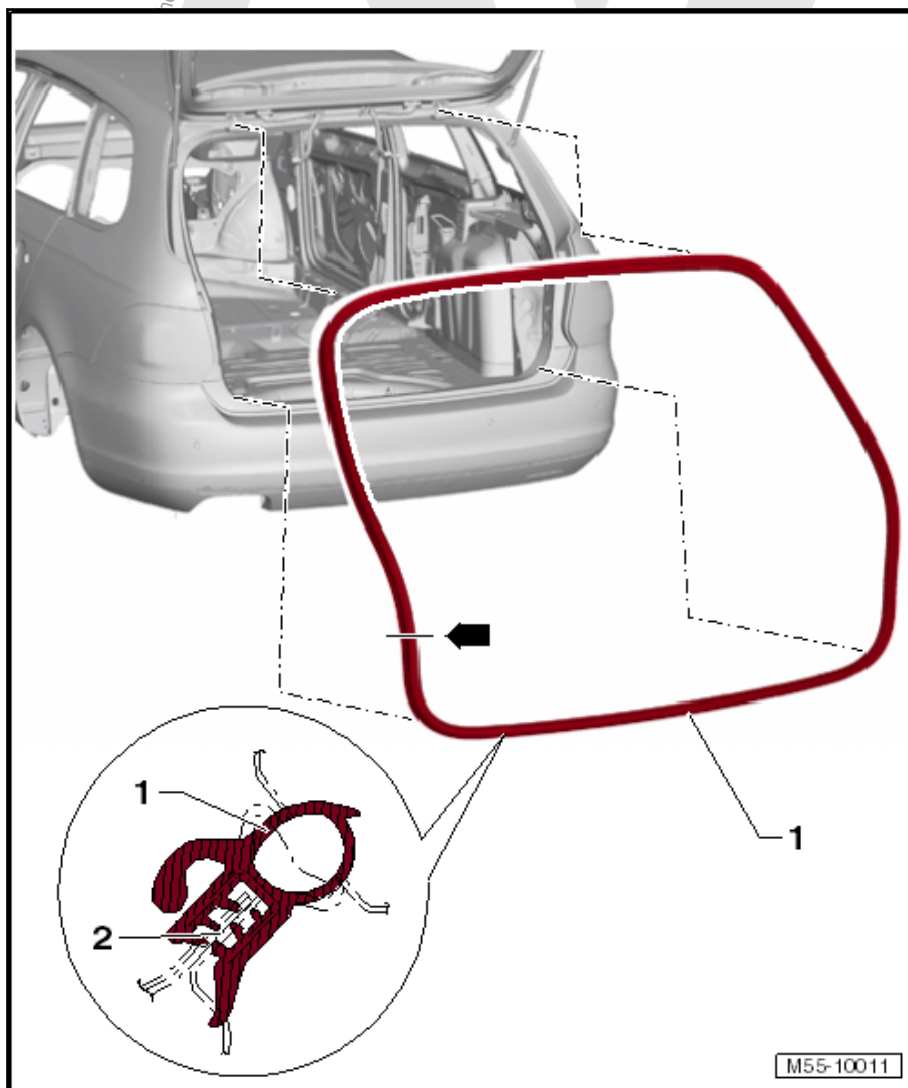
- ◆ *When the seal is removed, the sealant spreads on the inner side of the seal and the sides bend up slightly. If the seal is being installed again, the sealing performance and the secure fit are no longer guaranteed.*
- ◆ *For this reason, every completely removed seal must be replaced with a so-called "hammer-stroke seal".*
- ◆ *For partially removed seals, seal flanks must be pressed together before installation.*

## 2.12 Rear Lid Seal, Removing and Installing

⇒ "2.12.1 Removing", page 70

⇒ "2.12.2 Installing", page 70

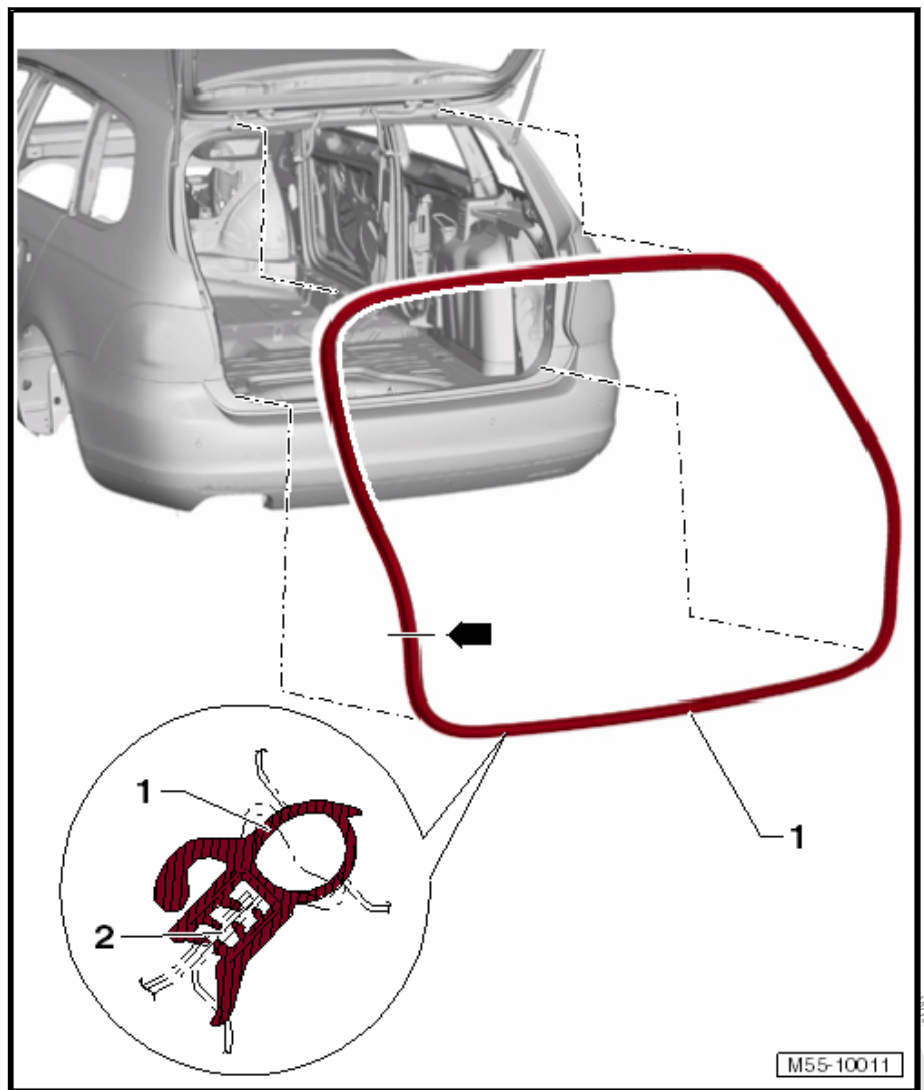
### 2.12.1 Removing



- Remove the rear lid seal -1- from body flange -2-.

### 2.12.2 Installing





- Align the rear lid seal -1- with the vulcanized point -arrow- on the tail lamp -arrow-.

Press the seal -1- evenly onto the window flange -2-.





### 3 License Plate Holder

**1 - Pop Rivet Nut**

- ❑ Quantity: 2

**2 - License Plate Holder**

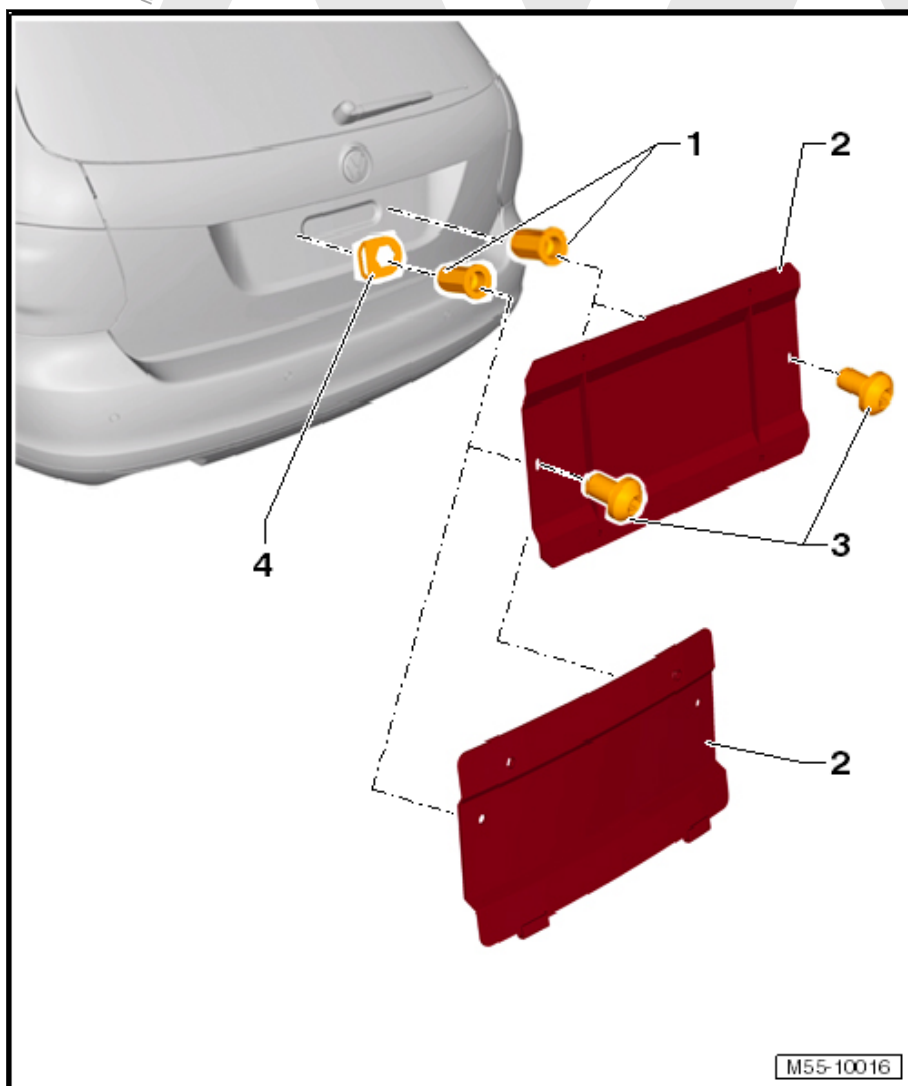
- ❑ Allocation. Refer to the  
⇒ Electronic Parts Catalog (ETKA) .

**3 - Bolt**

- ❑ Quantity: 2
- ❑ 4 Nm

**4 - Bracket**

- ❑ If installed







## 4 Fuel Filler Door Unit

⇒ ["4.1 Tools", page 73](#)

⇒ ["4.2 Overview - Fuel Filler Door Unit", page 73](#)

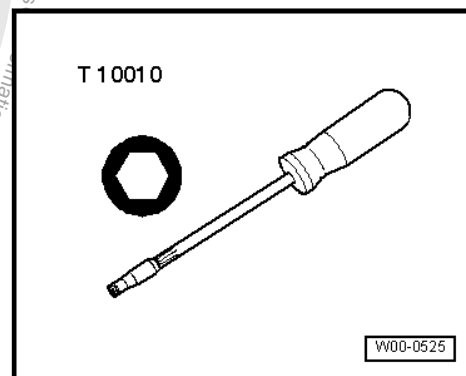
⇒ ["4.3 Fuel Filler Door Unit, Removing and Installing", page 74](#)

⇒ ["4.4 Fuel Filler Door Lock Motor V155 , Removing and Installing", page 76](#)

### 4.1 Tools

Special tools and workshop equipment required

- ◆ Wrench - Driver - T10010-



### 4.2 Overview - Fuel Filler Door Unit





**1 - Connector**

- ❑ For the Fuel Filler Door Lock Motor - V155-

**2 - Fuel Filler Door Lock Motor - V155-**

- ❑ Removing and Installing. Refer to ➤ ["4.4 Fuel Filler Door Lock Motor V155, Removing and Installing", page 76](#).

**3 - Fuel Filler Door Unit**

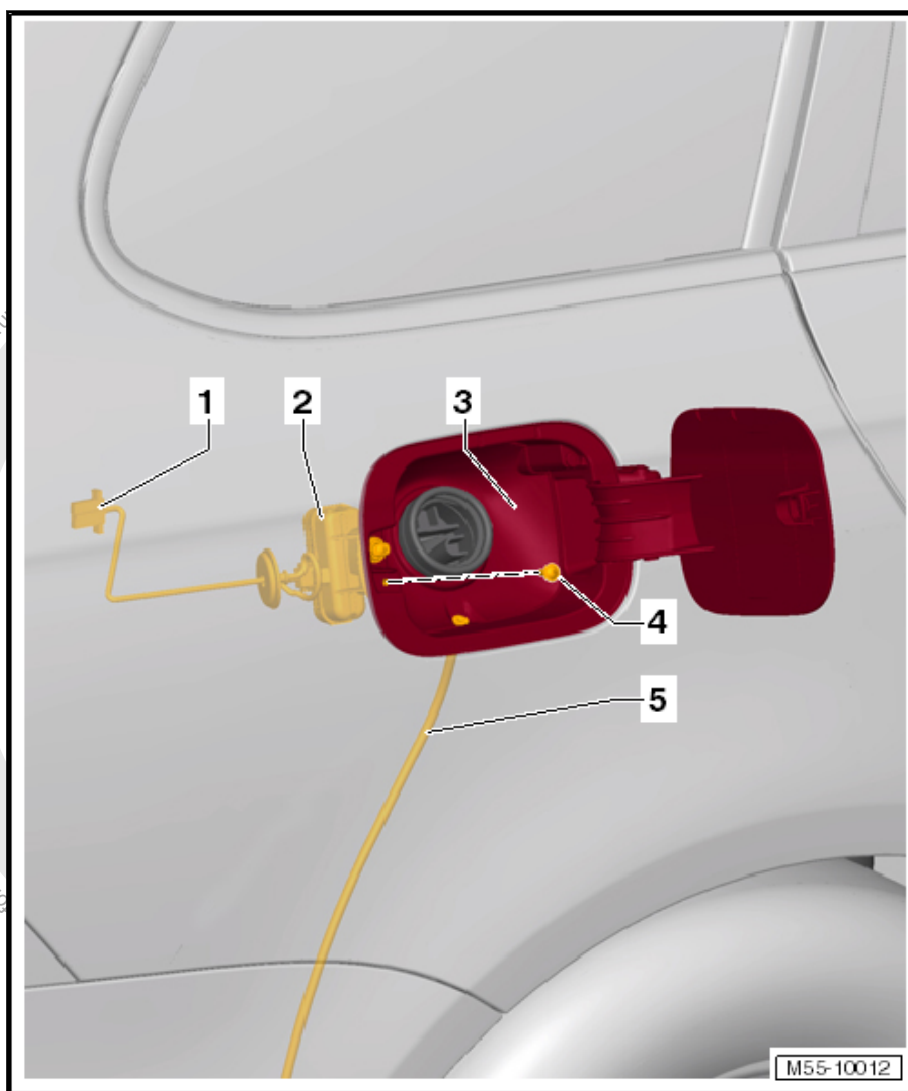
- ❑ Removing and Installing. Refer to ➤ ["4.3 Fuel Filler Door Unit, Removing and Installing", page 74](#).

**4 - Bolt**

- ❑ Tightening specification: 1.5 Nm

**5 - Water Drain Hose**

- ❑ Routed between the wheel housing and the wheel housing liner



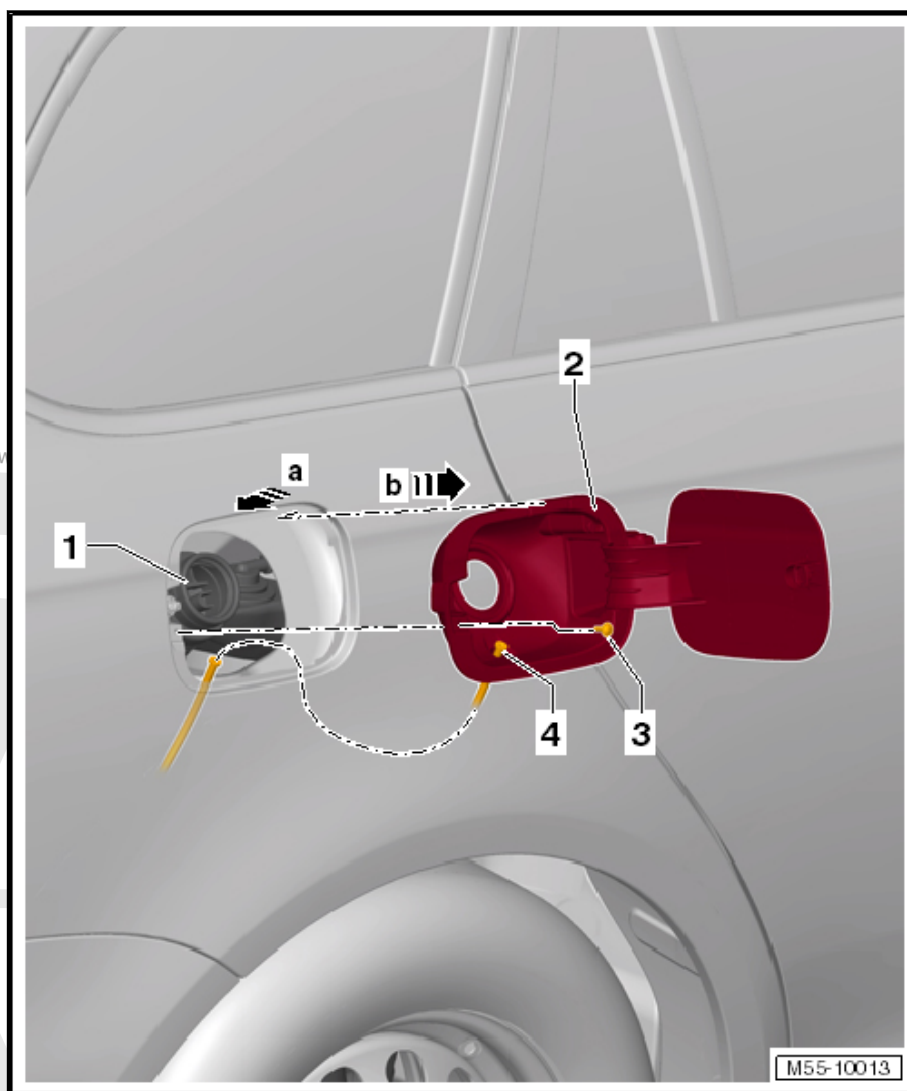
## 4.3 Fuel Filler Door Unit, Removing and Installing

➤ ["4.3.1 Removing", page 74](#)

➤ ["4.3.2 Installing", page 75](#)

### 4.3.1 Removing

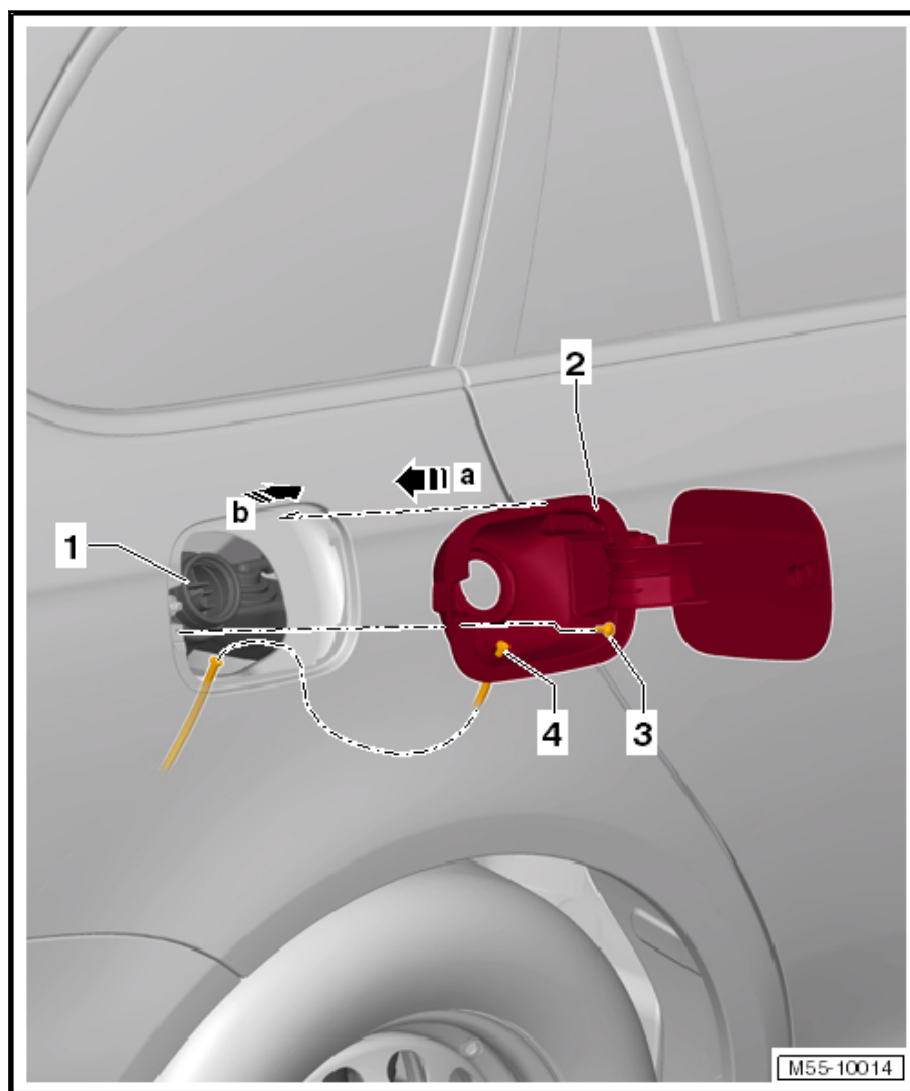




- ✓ Remove the fuel filler cap.
- Remove the bolt -3-.
- Fold the rubber grommet on the fuel filler door unit -2- back from the fuel filler neck -1-.
- Pull the fuel filler door unit -2- and water drain hose -4- toward the rear -arrow a- out of the retainers and then pivot the fuel tank insert -1- out of the side panel -arrow b-.

#### 4.3.2 Installing





- Insert the water drain hose -4- through opening in fuel filler door unit and pull the water drain hose through until it stops.
- Guide the water drain hose -4- into the side panel.
- Slide the fuel filler door unit -1- into the side panel -arrow a- with the hinge side first.
- Pivot the fuel filler door unit all the way into the side panel -arrow b-. Make sure the hook engages correctly inside the side panel.
- Pull the rubber grommet on the fuel filler door unit -2- over the fuel filler neck -1- and tighten the screw.

Bolt tightening specification -5- 1.5 Nm.

- Check correct function of unlocking components.

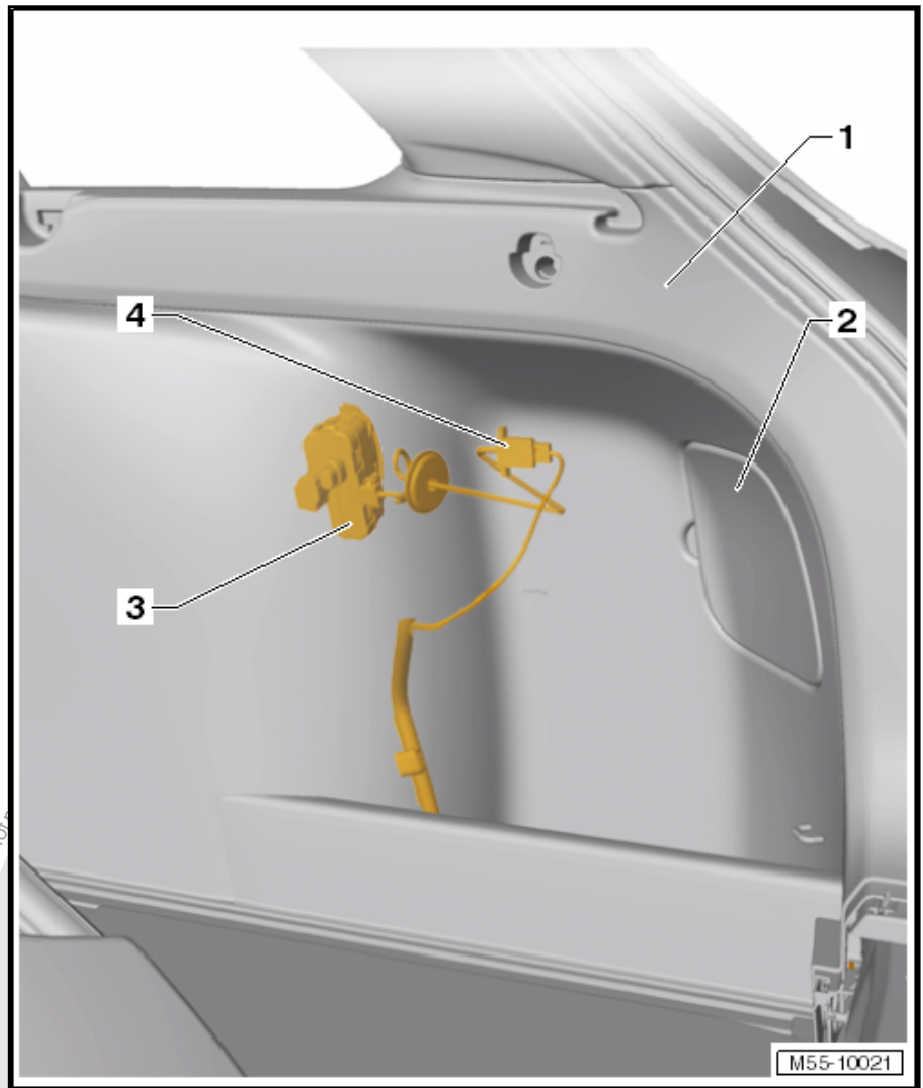
#### 4.4 Fuel Filler Door Lock Motor -V155- , Removing and Installing

⇒ [“4.4.1 Removing”, page 76](#)

⇒ [“4.4.2 Installing”, page 78](#)

##### 4.4.1 Removing



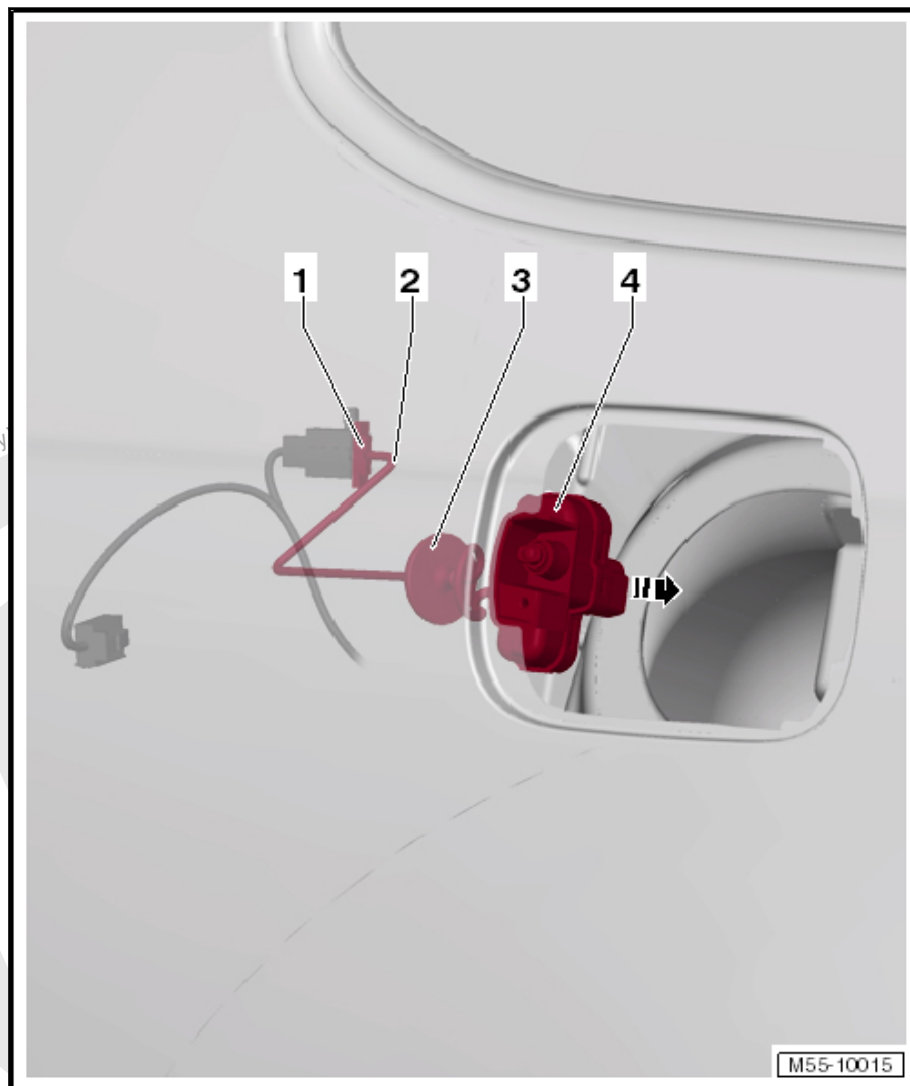


- Remove the service cover -2- from the luggage compartment right trim panel -1-.
- Loosen the luggage compartment right side trim panel -1- and pull it forward slightly but do not remove. Refer to  
⇒ Body Interior; Rep. Gr. 70 ; Trim/Insulation; Trim, Luggage Compartment Side Trim, Removing and Installing .

Reach through the opening in the service cover -2- and disconnect the connector -4- from the Fuel Filler Door Unlock Motor -V155- -3-.







- Remove the fuel filler door unit. Refer to ⇒ [“4.3 Fuel Filler Door Unit, Removing and Installing”, page 74](#).
- Press the rubber grommet -3- out of the side panel and remove the wiring harness -2-.
- Remove the Fuel Filler Door Unlock Motor - V155- -4- from the side panel in the -direction of the arrow-.

#### 4.4.2 Installing

Install in reverse order of removal.

- Make sure the grommet and the connector fit correctly.
- Secure the luggage compartment right side trim. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation; Luggage Compartment Side Trim Panel, Removing and Installing .





## 57 – Front Doors, Central Locking System

### 1 Front Door

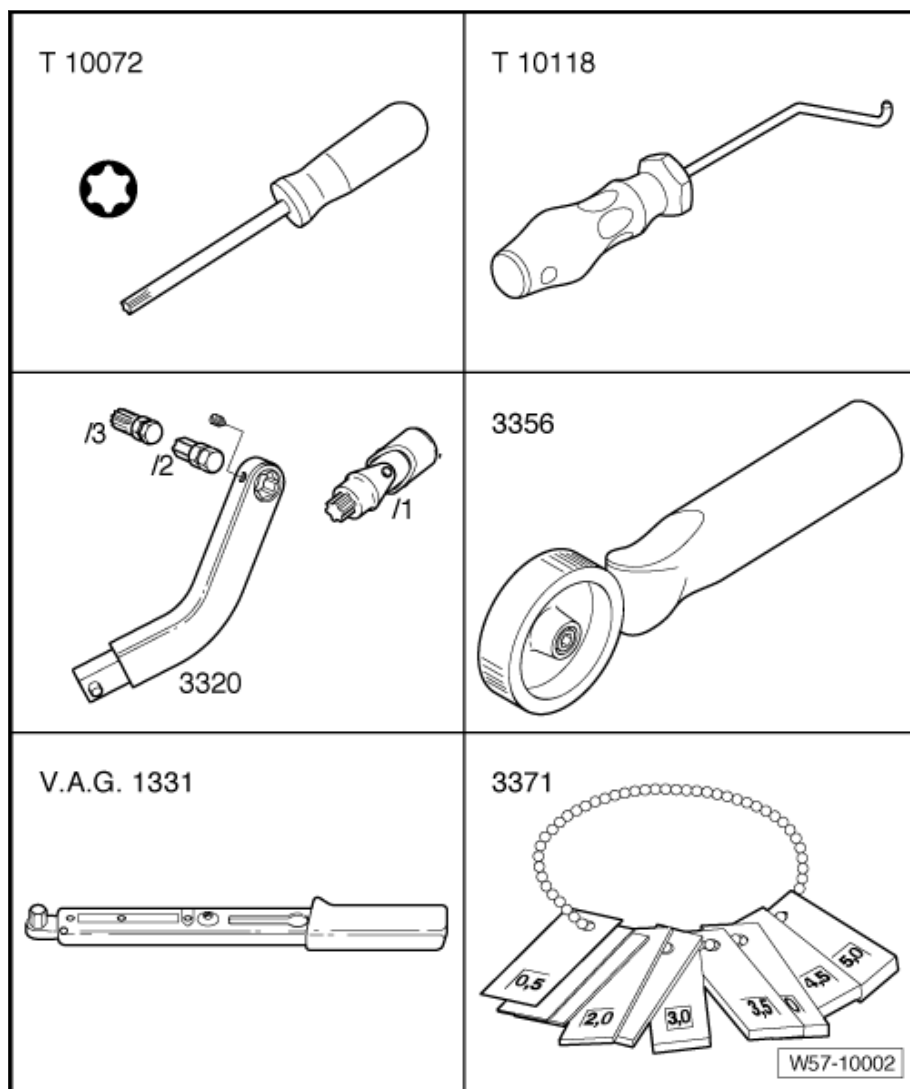
- ⇒ [“1.1 Tools”, page 79](#)
- ⇒ [“1.2 Materials”, page 82](#)
- ⇒ [“1.3 Overview - Door Construction”, page 82](#)
- ⇒ [“1.4 Overview - Door Hinges”, page 84](#)
- ⇒ [“1.5 New Door Hinges, Lubricating”, page 86](#)
- ⇒ [“1.6 Door, Removing and Installing”, page 87](#)
- ⇒ [“1.7 Door Adjustment”, page 89](#)
- ⇒ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#)
- ⇒ [“1.9 New Outer Door Panel, Installing”, page 97](#)
- ⇒ [“1.10 Outer Door Plate Retaining Track, Removing and Installing”, page 101](#)
- ⇒ [“1.11 New Outer Door Plate, Installation Notes for Adhering”, page 103](#)
- ⇒ [“1.12 Minimum Curing Time”, page 103](#)
- ⇒ [“1.13 Adhesive Sealant, Removing from Window”, page 104](#)
- ⇒ [“1.14 Overview - Door Inner Panel”, page 104](#)
- ⇒ [“1.15 Overview - Door Handle and Door Lock”, page 105](#)
- ⇒ [“1.16 Lock Cylinder, Removing and Installing”, page 107](#)
- ⇒ [“1.17 Door Handle, Removing and Installing”, page 108](#)
- ⇒ [“1.18 Mounting Bracket, Removing and Installing”, page 110](#)
- ⇒ [“1.19 Door Lock, Removing and Installing”, page 111](#)
- ⇒ [“1.20 Overview - Side Impact Protection”, page 113](#)
- ⇒ [“1.21 Inner Door Seal”, page 113](#)
- ⇒ [“1.22 Inner Door Seal, Removing and Installing”, page 114](#)
- ⇒ [“1.23 Outer Door Seal, Removing and Installing”, page 115](#)

#### 1.1 Tools



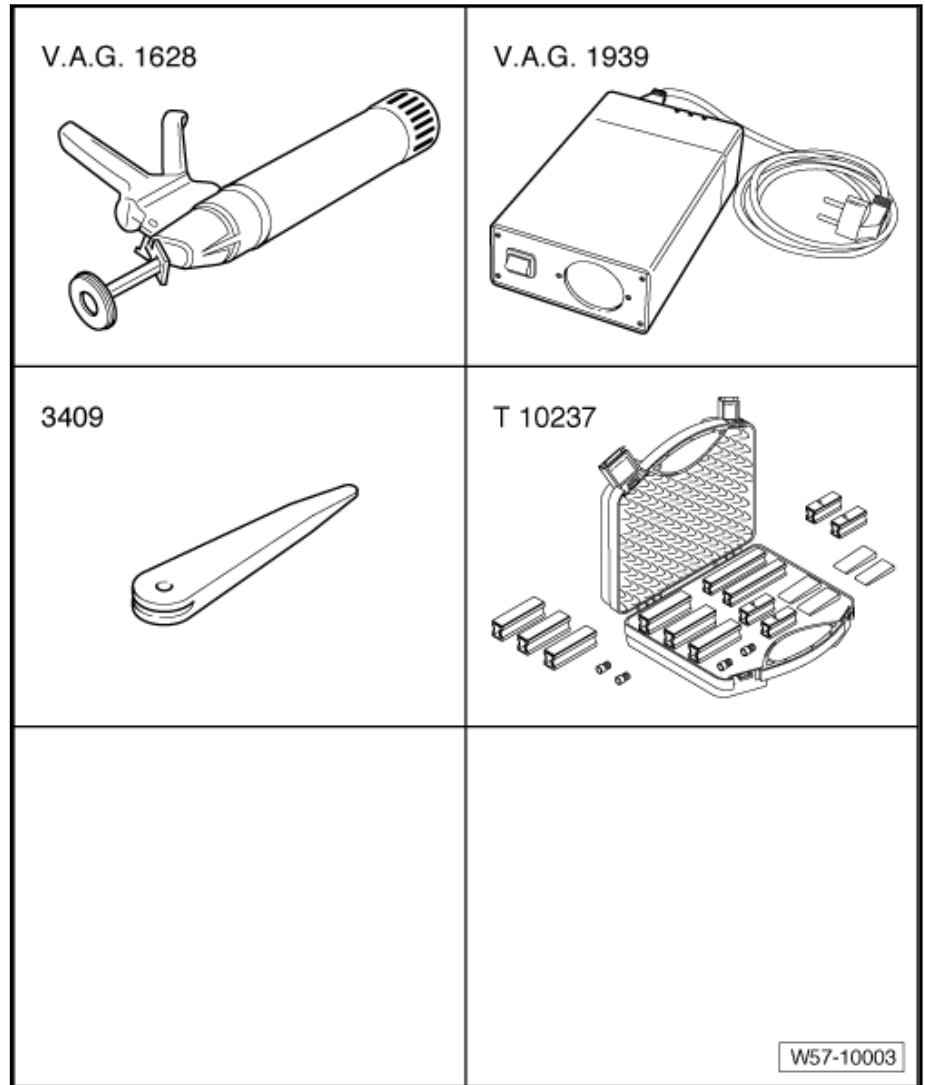


**Special tools and workshop  
equipment required**

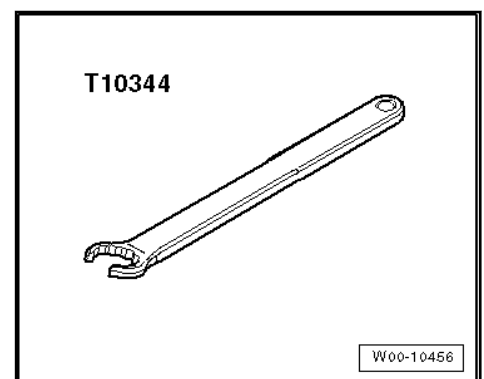


- ◆ Wrench - Driver - T10072-
- ◆ Elbow Assembly Tool - T10118-
- ◆ Wrench - Door Adjusting - 3320- with Wrench - Door Adjust-  
ing Wrench - Joint - 3320/1- , Wrench - Door Adjusting -  
Box Wrench - 3320/2- and Wrench - Door Adjusting - Box  
Wrench - 3320/3-
- ◆ Roller - 3356-
- ◆ Torque Wrench, 6-50Nm - VAG 1331A-
- ◆ Gauge - Gap Adjustment - 3371-





- ◆ Cartridge Gun - V.A.G 1628-
- ◆ Cartridge Heater - V.A.G 1939 A-
- ◆ Trim Removal Wedge - 3409-
- ◆ Door Panel Assembly Set - T10237-
- ◆ Open Ring Wrench - 15mm - T10344-







## 1.2 Materials



### Note

Refer to the ⇒ *Electronic Parts Catalog (ETKA) for the material part numbers.*

- ◆ One-part window adhesive <sup>1) 2) 3)</sup>
- ◆ Glass/Paint primer <sup>3)</sup>
- ◆ Cleaning solution <sup>3)</sup>
- ◆ Primer applicator <sup>3)</sup>
- ◆ Adhesive remover <sup>3)</sup>
- ◆ Cutting wire <sup>3)</sup>

1) Note the minimum curing time. Refer to ⇒ ["1.12 Minimum Curing Time", page 103](#) .

2) Heat according to the manufacturer's instructions using the Adhesive Heater - 1939US- .

3) Follow the manufacturer instructions supplied in the packaging.

## 1.3 Overview - Door Construction

The door design from the 2007 Golf Wagon was used in the 2010 Golf Wagon.

The door consists of door inner part -13- and outer door plate -3-.

Parts are joined by the front -14- and the rear -12- rails.

Retaining tracks are bolted to door inner part and bonded to outer door plate.

The inner door part -13- undertakes among other things the function of the previously known subframe. Speakers, window regulators, window regulator motors, wires, window guide, Exterior rearview mirror and door lock are installed on the inner part of the door.

The outer door plate -3- is also bolted to door inner panel on the lower edge. The outer window shaft seal -21-, the noise insulation -4- and the exterior door handle -1- are attached to the outer door panel.



### Caution

***Various bolts are used to secure the outer door plate. Outer door plate is damaged if not allocated correctly.***



### Note

*The anti-friction film -5- must always be bonded between the outer and inner door panels.*





## 1 - Door Handle

Removing and Installing. Refer to ➤ [“1.17 Door Handle, Removing and Installing”, page 108](#).

## 2 - Lock Cylinder Housing

Removing and Installing. Refer to ➤ [“1.16 Lock Cylinder, Removing and Installing”, page 107](#).

## 3 - Outer Door Panel

- ☐ Removing and Installing. Refer to ➤ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#).

## 4 - Insulation

- ☐ Self-adhesive
- ☐ To adhere, insulation must be preheated and then pressed on firmly

## 5 - Anti-Friction Film

- ☐ Self-adhesive
- ☐ Bonded between the outer and inner door panels

## 6 - Bolt

- ☐ Quantity: 6. Refer to ➤ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#).
- ☐ 10 Nm

## 7 - Door Window

- ☐ Removing and Installing. Refer to ➤ [“2 Front Door Window”, page 248](#).

## 8 - Door Lock

- ☐ Removing and Installing. Refer to ➤ [“1.19 Door Lock, Removing and Installing”, page 111](#).

## 9 - Mounting Bracket

- ☐ Removing and Installing. Refer to ➤ [Item 10 \(page 106\)](#).

## 10 - Bolt

- ☐ Quantity: 1. Refer to ➤ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#).
- ☐ 10 Nm

## 11 - Bolt

- ☐ Quantity: 5. Refer to ➤ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#).
- ☐ 14 Nm

## 12 - Rear Rail

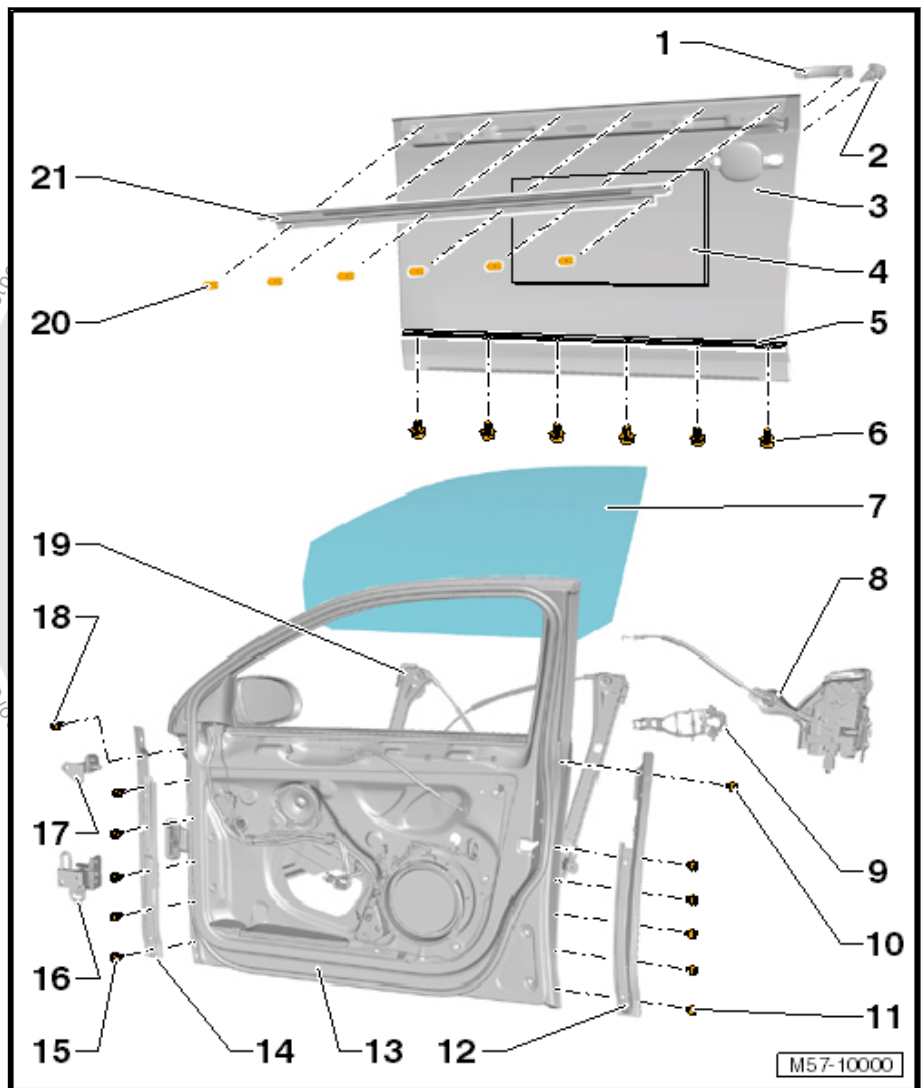
- ☐ Adhesive -DH 009 100 A2-

## 13 - Door Inner Panel

- ☐ Overview. Refer to ➤ [“1.14 Overview - Door Inner Panel”, page 104](#).

## 14 - Front Rail

- ☐ Adhesive -DH 009 100 A2-







#### 15 - Bolt

- ☐ Quantity: 5. Refer to ⇒ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#) .
- ☐ 14 Nm

#### 16 - Lower Door Hinge

- ☐ Overview. Refer to ⇒ [“1.4 Overview - Door Hinges”, page 84](#) .

#### 17 - Upper Door Hinge

- ☐ Overview. Refer to ⇒ [“1.4 Overview - Door Hinges”, page 84](#) .

#### 18 - Bolt

- ☐ Quantity: 1. Refer to ⇒ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#) .
- ☐ 10 Nm

#### 19 - Window Regulator

- ☐ Removing and Installing. Refer to ⇒ [“4 Window Regulator, Removing and Installing”, page 260](#) .

#### 20 - Clip

- ☐ Quantity: 6

#### 21 - Outer Window Shaft Seal

- ☐ Must be installed before installing outer door plate

## 1.4 Overview - Door Hinges



### Note

- ◆ *The illustration shows the right side. The left side is identical.*
- ◆ *Always replace the door hinge bolts after loosening them.*
- ◆ *Hinges are no longer manufactured as separated parts.*
- ◆ *Lubricate the new door hinge if the old one was replaced.*





## 1 - Door

- ☐ Removing and Installing. Refer to ➤ ["1.6 Door, Removing and Installing", page 87](#).
- ☐ Adjusting. Refer to ➤ ["1.7 Door Adjustment", page 89](#).

## 2 - Guide Bolt

- ☐ Tightening specification: 10 Nm.

## 3 - Door Hinge with Door Arrester

- ☐ Lubricate if the hinge is replaced. Refer to ➤ ["1.5 New Door Hinges, Lubricating", page 86](#).

## 4 - Bolt

- ☐ Tightening specification: 38 Nm
- ☐ Always replace bolts after loosening them

## 5 - Bolt

- ☐ Installed from the vehicle interior
- ☐ Remove the lower A-pillar trim panel. Refer to ➤ Body Interior; Rep. Gr. 70 ; Trim Panels/Insulation; Pillar and Side Trim Panels
- ☐ Tightening specification 50 Nm.
- ☐ Always replace bolts after loosening them

## 6 - Bolt

- ☐ Tightening specification: 38 Nm
- ☐ Always replace bolts after loosening them

## 7 - Bolt

- ☐ Tightening specification: 50 Nm.
- ☐ Always replace bolts after loosening them

## 8 - Lower Spacer Plate

## 9 - Adjusting Ring

- ☐ Provides the eccentric pin adjustment range.

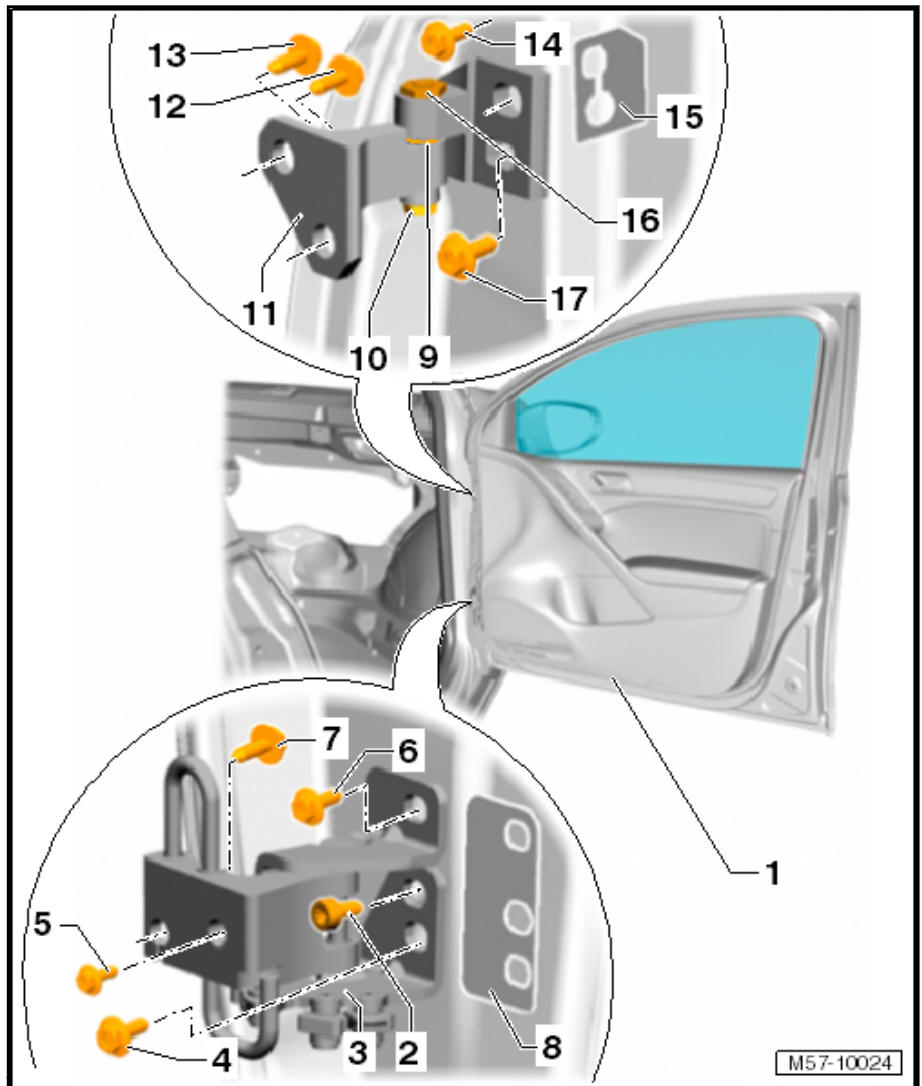
## 10 - Bolt

- ☐ For the eccentric bolts
- ☐ Tightening specifications: 28 Nm

## 11 - Door Hinge

- ☐ The door hinge is not separated.
- ☐ Lubricate if the hinge is replaced. Refer to ➤ ["1.5 New Door Hinges, Lubricating", page 86](#).

## 12 - Bolt







- ☐ Tightening specification 50 Nm.
- ☐ Always replace bolts after loosening them

#### 13 - Bolt

- ☐ Tightening specification 50 Nm.
- ☐ Always replace bolts after loosening them

#### 14 - Bolt

- ☐ Tightening specification: 38 Nm
- ☐ Always replace bolts after loosening them

#### 15 - Upper Spacer Plate

#### 16 - Eccentric Bolts

- ☐ The eccentric bolts are for adjusting the gap

#### 17 - Guide Bolt

- ☐ Tightening specification: 10 Nm.

## 1.5 New Door Hinges, Lubricating

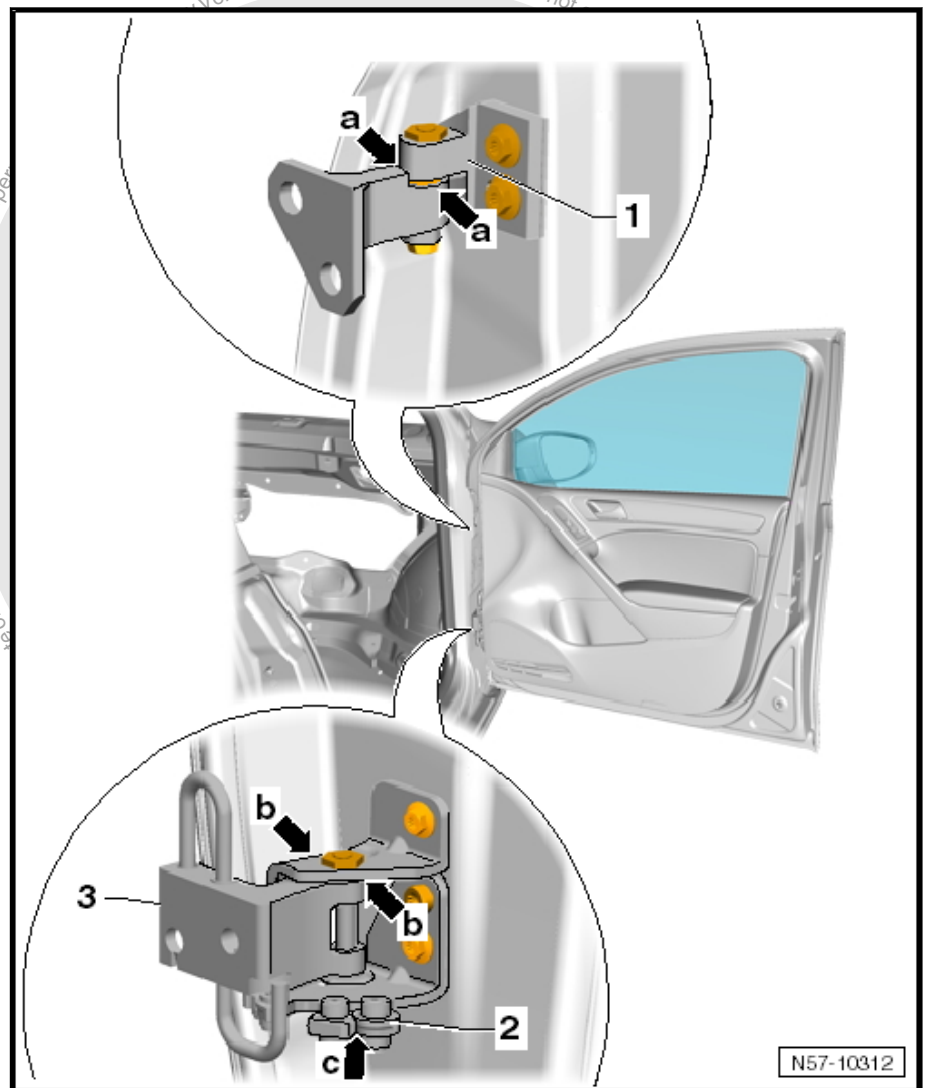


### Note

*Lubricate the new door hinge after the painting is completed.*







- The upper door hinge -1- is lubricated all around -a arrows- at the pins and hole with Lithium Grease - G 000 150- .
- Lubricate the lower hinge -3- all around -b arrows- at the pins and hole with Lithium Grease - G 000 150- .
- Lubricate the door check torsion spring -2- on the lower hinge with Lithium Grease - G 000 150- -arrow c-.

## 1.6 Door, Removing and Installing

⇒ ["1.6.1 Removing", page 87](#)

⇒ ["1.6.2 Installing", page 88](#)

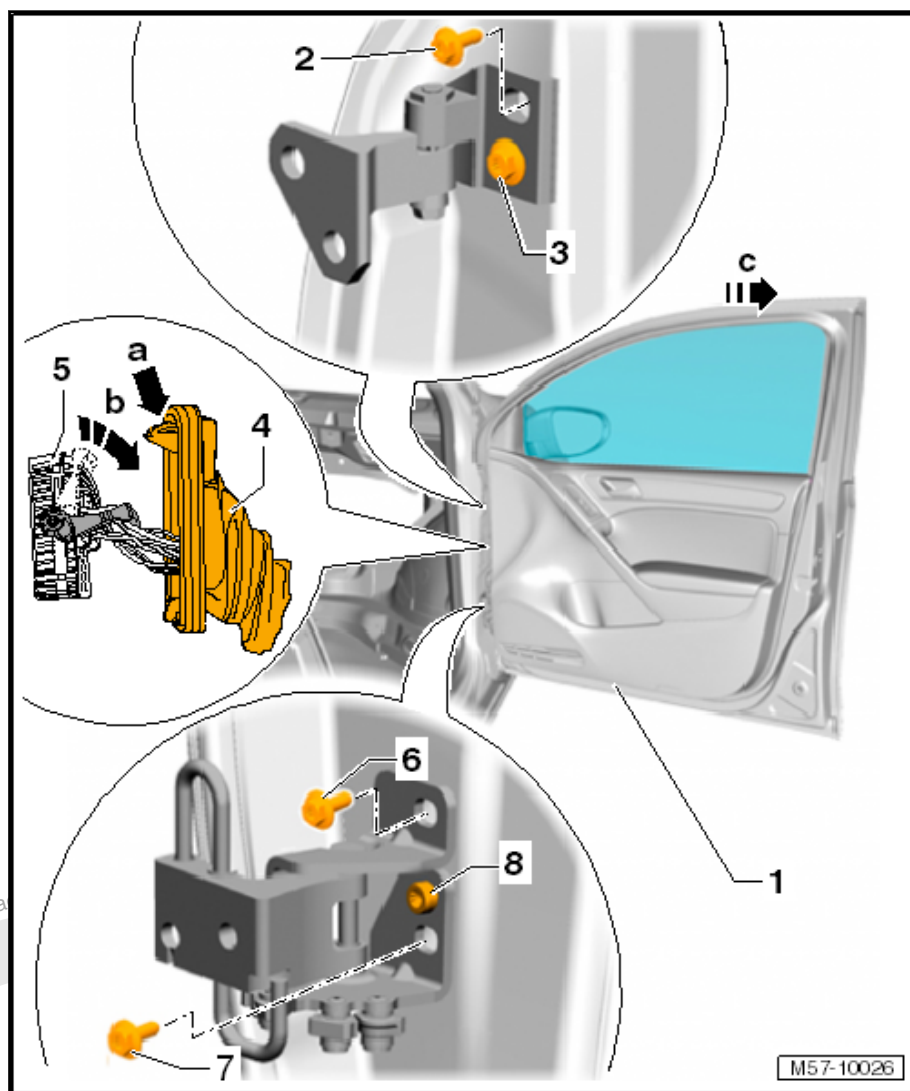


### Note

*The following describes removing and installing the right door. Removing and installing the left door is identical.*

### 1.6.1 Removing

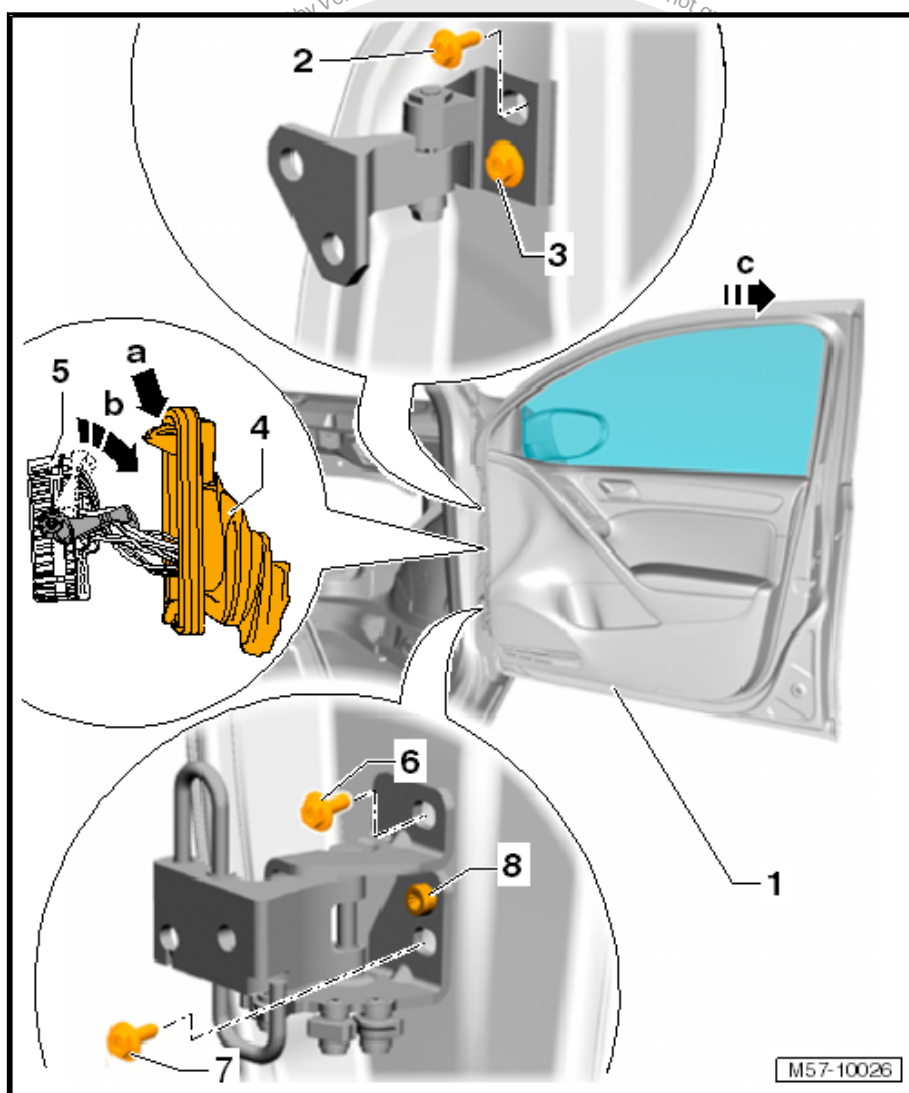




- Press on the catch -arrow a- and remove the boot -4- from the A-pillar.
- Move the locking lever -5- downward -arrow b- and disconnect the connector from connector station.
- Remove the bolts -2, 6 and 7- from the hinge using the Wrench - Door Adjusting - 3320- and the Wrench - Door Adjusting - Box Wrench - 3320/3- .
- The bolts -3 and 8- are actually guide screws and remain on the hinge.
- Pull the door -1- off the guide screws -3 and 8- in the -direction of the arrow c-

## 1.6.2 Installing





Install in reverse order of removal.

- Always replace the bolts -2, 6 and 7-.
- Bolts -2, 6 and 7- tightening specification: 38 Nm.
- Make sure the front door gap dimension is correct. Refer to  
⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Gap  
Dimensions; Body, Center .

## 1.7 Door Adjustment

⇒ [“1.7.1 Tools”, page 89](#)

⇒ [“1.7.2 Door, Adjusting Gap Dimension and Flush Dimension”, page 90](#)

⇒ [“1.7.3 Door, Adjusting Gap Dimensions”, page 92](#)

⇒ [“1.7.4 Striker, Adjusting”, page 93](#)

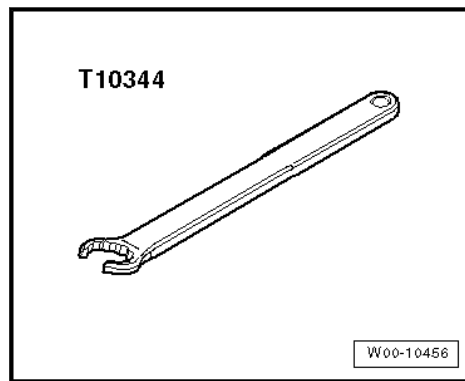
### 1.7.1 Tools

Special tools and workshop equipment required





- ◆ Open Ring Wrench - 15mm - T10344-



## 1.7.2 Door, Adjusting Gap Dimension and Flush Dimension

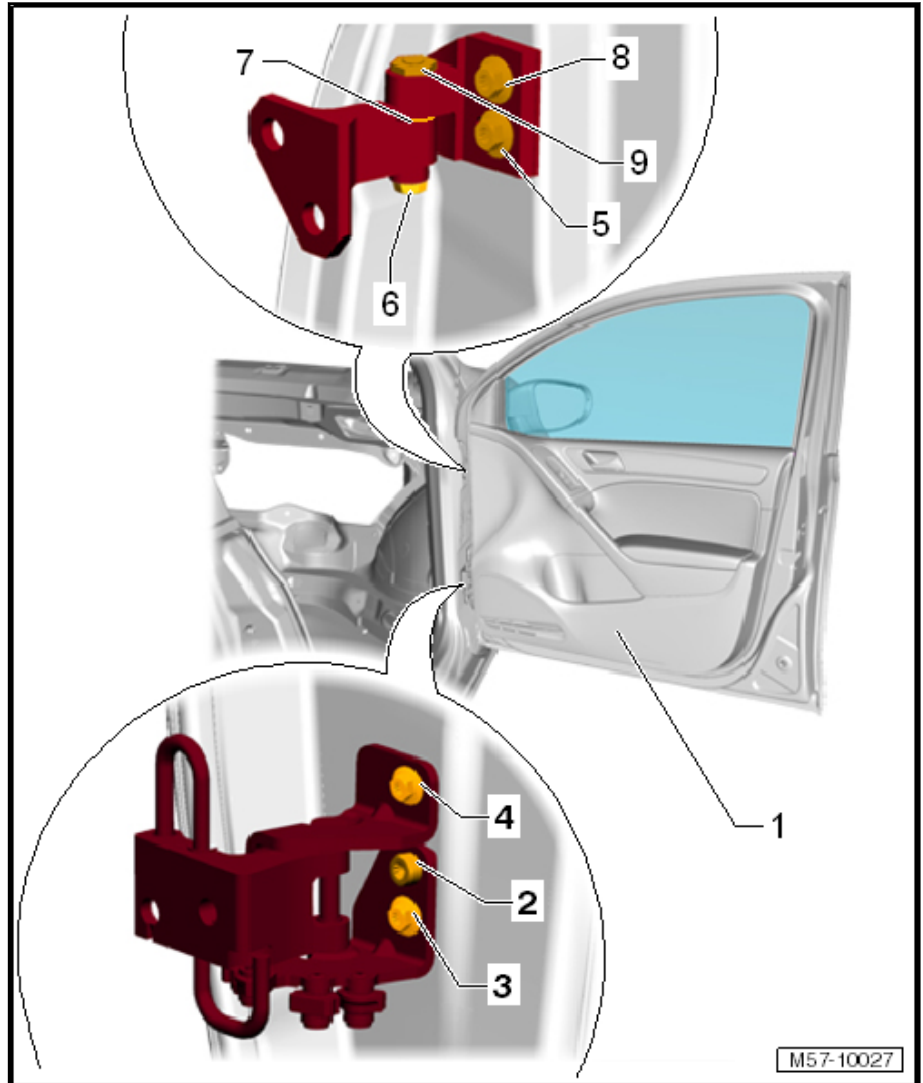


### Note

- ◆ *The door is properly adjusted when there is an overall even gap dimension when closed, it is not too far inward or outward and contours align.*
- ◆ *Vehicle must stand on its wheels while they are on the ground in order to be able to perform the adjustment.*







### Adjusting the gap dimensions

- Make sure the front door gap dimension is correct. Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Gap Dimensions; Body, Center .

Adjustments are made using the eccentric bolts -9-.

Other measures, such as aligning the door upward, do not work. Pressure later will cause the door to sag again.

- Loosen eccentric pin bolt -6-.
- Adjust the eccentric bolt -9- within the adjustment range -7- using a Open Ring Wrench - 15mm - T10344- .
- Tighten the bolt -6-. Tightening specification: 28 Nm
- Adjust the striker. Refer to ⇒ [“1.7.4 Striker, Adjusting”, page 93](#) .
- If the adjustment range is insufficient, then proceed as described in Refer to ⇒ [“1.7.3 Door, Adjusting Gap Dimensions”, page 92](#) .

### Adjusting the flush dimension

The flush dimension is adjusted using the bolts -2, 3, 4, 5 and 8- on the door hinge.

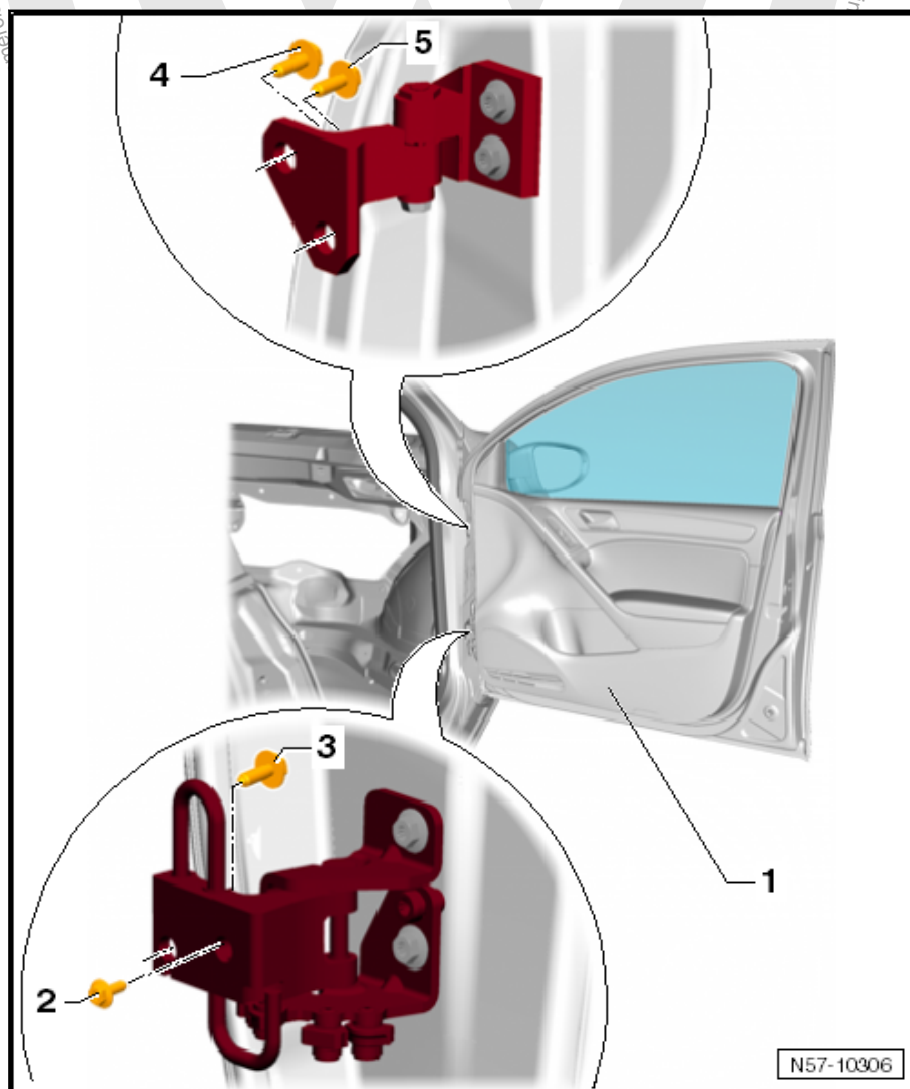




The Wrench - Door Adjusting - 3320- and Wrench - Door Adjusting - Box Wrench - 3320/3- are used for this.

- In order to adjust the upper area of the door, loosen bolts -5 and 8-.
- Tightening specification for bolt -5-: 10 Nm.
- Bolt tightening specification -8-: 38 Nm.
- In order to adjust the lower area of the door, loosen bolts -2, 3 and 4-.
- Bolt tightening specification -2-: 10 Nm.
- Bolt tightening specification -3 and 4-: 38 Nm.
- Adjust the striker. Refer to ["1.7.4 Striker, Adjusting", page 93](#).

### 1.7.3 Door, Adjusting Gap Dimensions



If the adjustment using the eccentric bolt is insufficient, then adjust the gap dimensions on the door hinge once again using the screws -2, 3, 4, and 5-.

The Wrench - Door Adjusting - 3320- and Wrench - Door Adjusting - Box Wrench - 3320/3- are used for this.





- Tightening specification for screws -2, 3, 4, and 5-: 50 Nm.

Always replace the screws -2, 3, 4, and 5-.

### 1.7.4 Striker, Adjusting



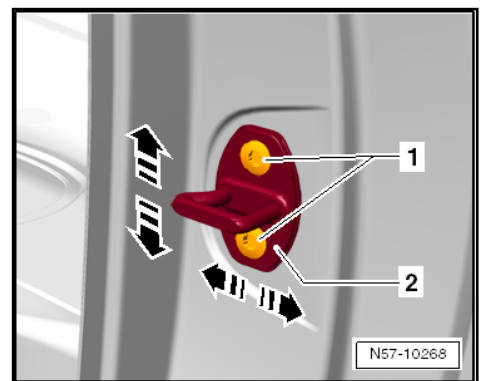
#### Note

- ◆ *When closing, the front door must latch completely without additional force and it must not have any play.*
- ◆ *By adjusting the striker, the door must not be pushed upward or downward.*

The catch can be used to adjust:

- If the front door does not align with the rear door.
- Loosen the bolts -2- on the B-pillar to loosen the bracket -1-.
- Adjust front door with striker -2- so that front door aligns with rear door when closed (wind noise).
- Tighten the bolts -1- for the striker -2-.

Tightening specifications: bolts -1- - 20 Nm.

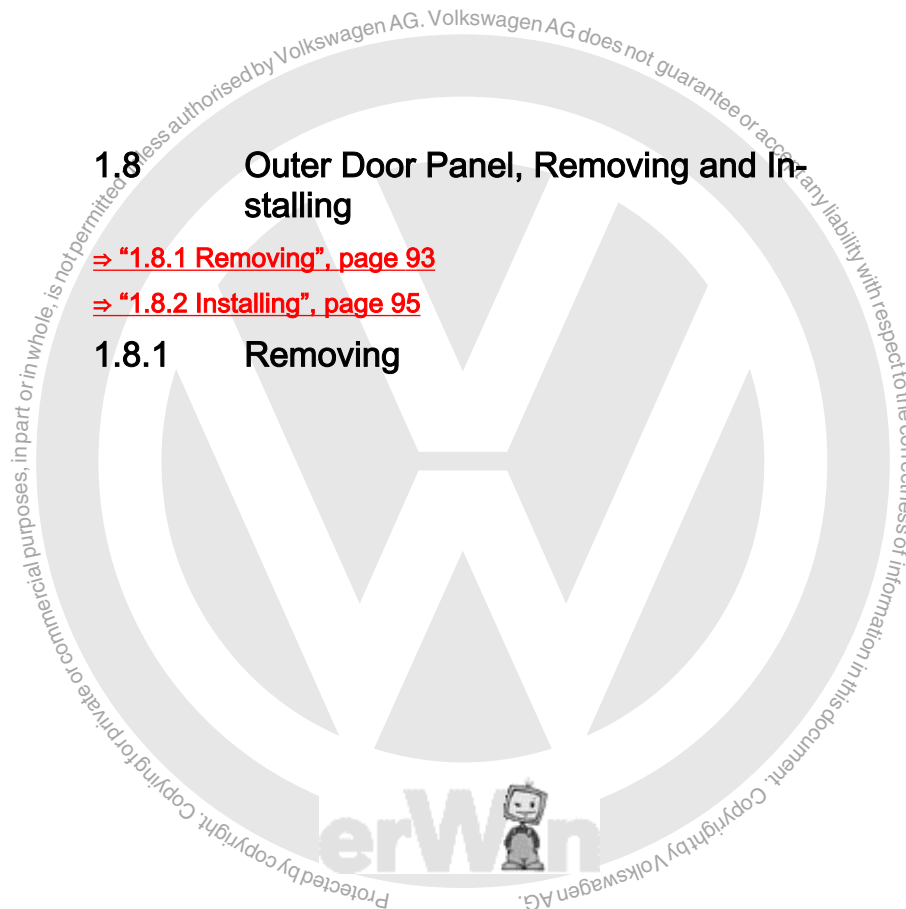


## 1.8 Outer Door Panel, Removing and Installing

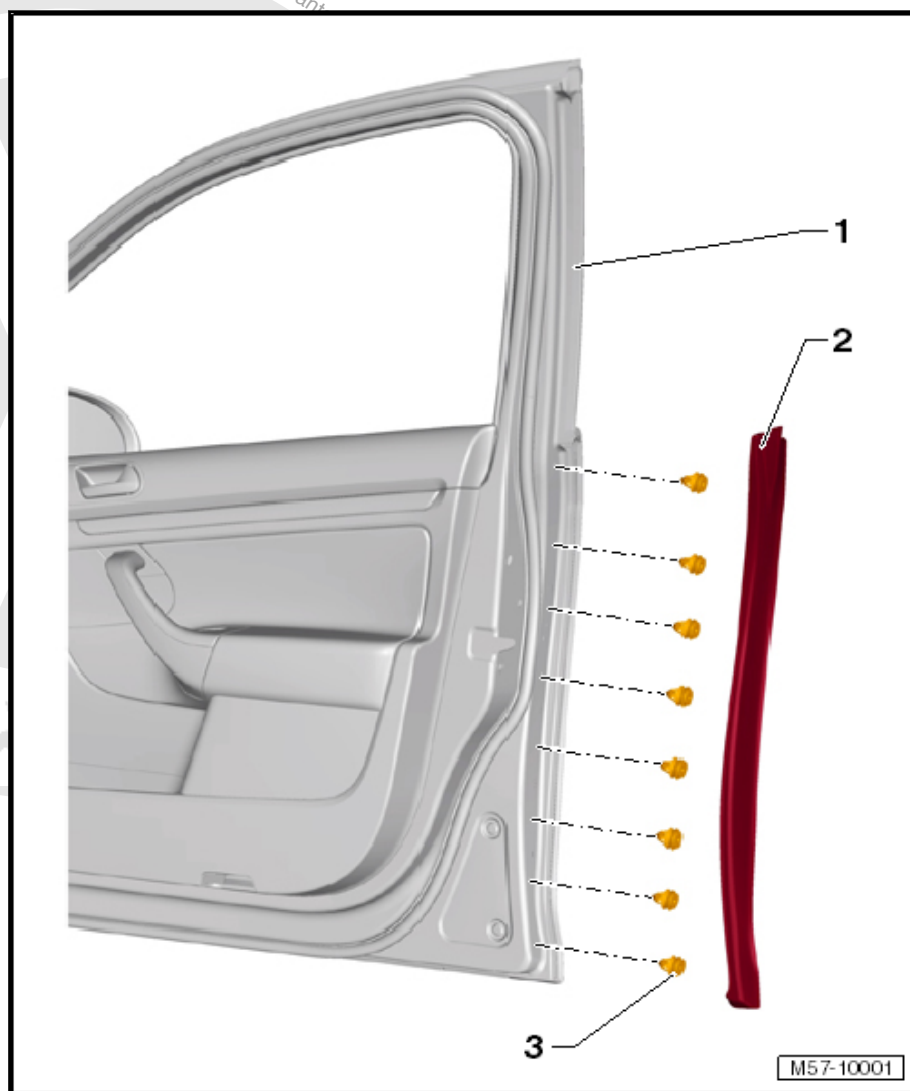
⇒ ["1.8.1 Removing", page 93](#)

⇒ ["1.8.2 Installing", page 95](#)

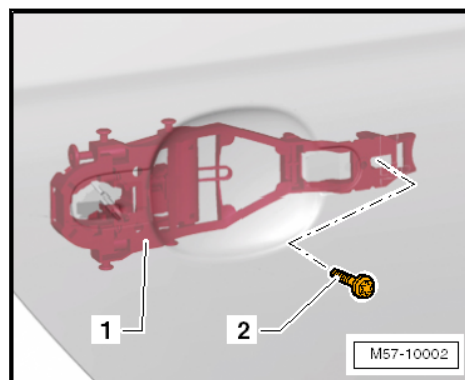
### 1.8.1 Removing



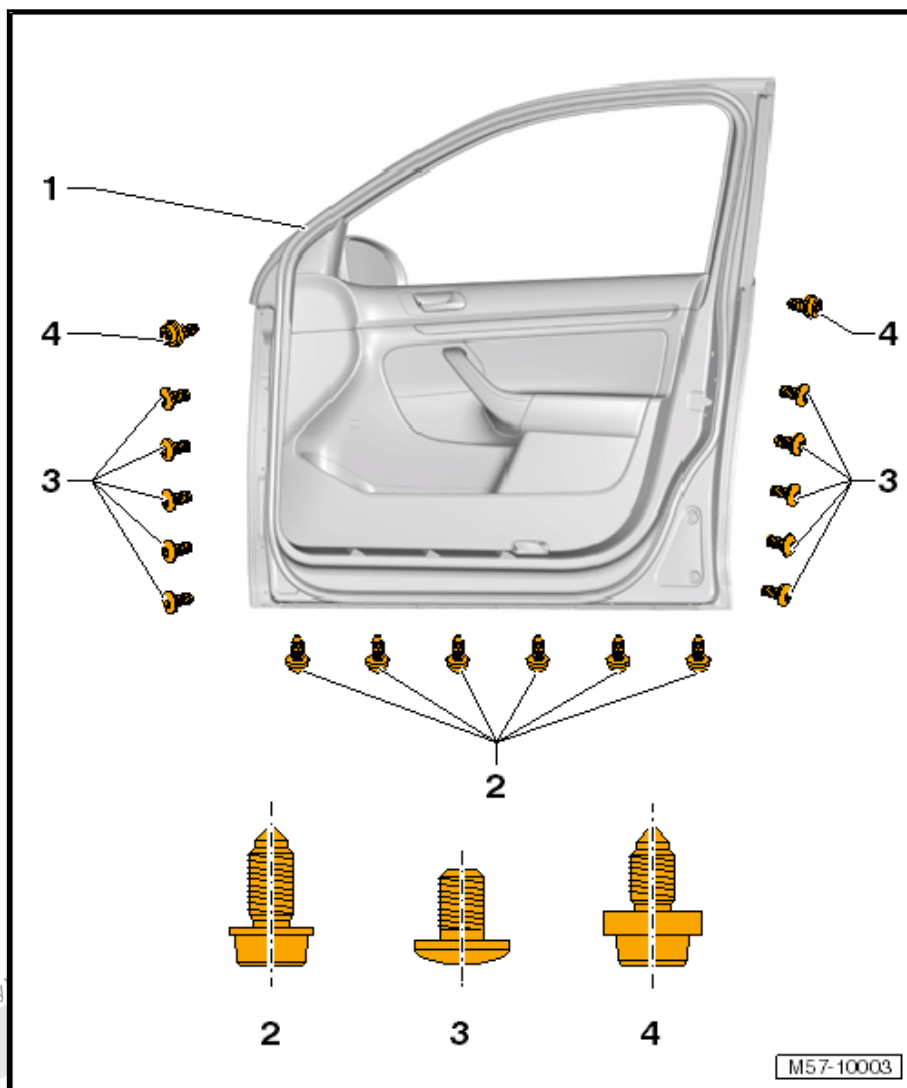




- Remove the cover -2- with the clips -3- from the door -1- starting at the bottom.
- Remove the lock cylinder. Refer to ⇒ [“1.16 Lock Cylinder, Removing and Installing”, page 107](#).
- Remove the door handle. Refer to ⇒ [“1.17 Door Handle, Removing and Installing”, page 108](#).
- Remove the bolt -2- from the mounting bracket -1-, located behind the outer door panel.







- Remove all bolts -2-, -3- and -4-.



#### Note

*On some vehicles, bolt -2- may be installed instead of bolt -4- on the top rear of the door. If this is the case, do not replace bolt -2- with bolt -4-.*

- Remove the outer door panel from the door -1-.

### 1.8.2 Installing



#### Caution

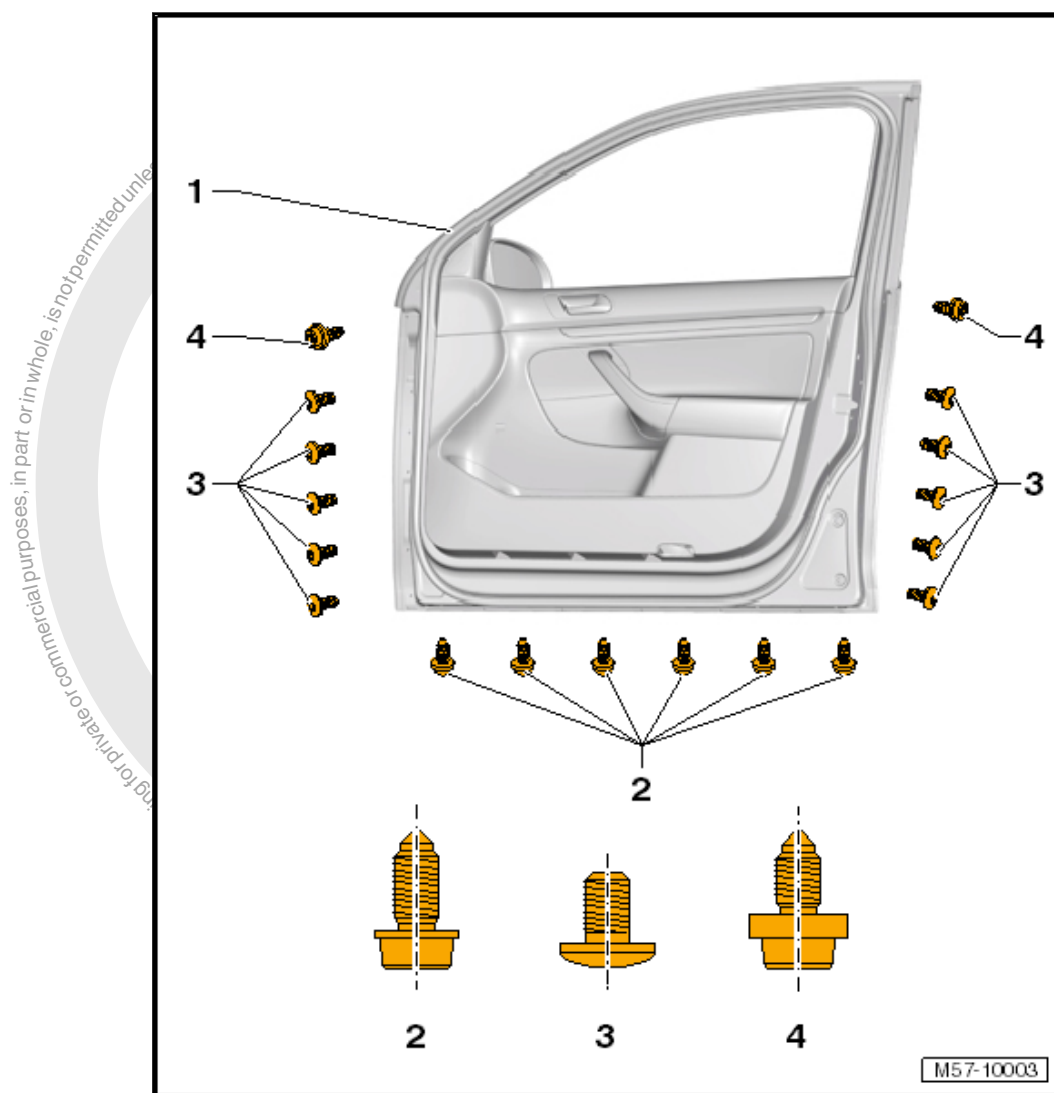
**Various bolts are used to secure the outer door plate. Outer door plate is damaged if not allocated correctly.**



#### Note

The anti-friction film ⇒ [Item 5 \(page 83\)](#) must always be bonded between the outer and inner door panels.





- Position the outer door panel on the door -1-.
- Install all bolts -2-, -3- and -4-.

Make sure the various bolts are used correctly.

- ◆ Note for bolt -2-: Bolt with point and thin washer
- ◆ Note for bolt -3-: Bolt without point and without a washer
- ◆ Note for bolt -4-: Bolt with point and has thick washer
- Check whether guide pins for retaining tracks are located in the corresponding guide holes of door inner part. Only then tighten all bolts -2-, -3- and -4-.

Observe the correct tightening specifications for the various bolts.

Bolt tightening specification -2-: 10 Nm.

Bolt tightening specification -3-: 14 Nm.

Bolt tightening specification -4-: 10 Nm.

Further installation is performed in reverse order of the removal.





## 1.9 New Outer Door Panel, Installing



### Caution

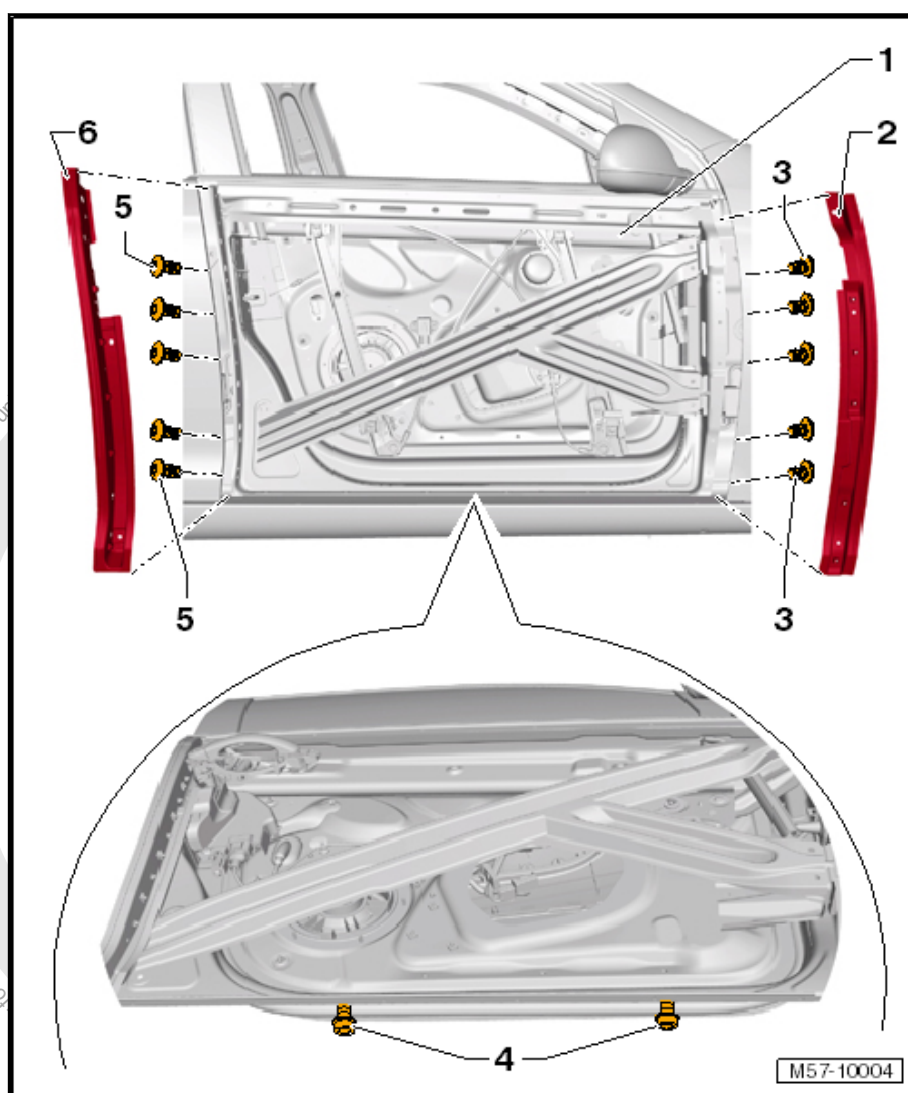
*Various bolts are used to secure the outer door plate. Outer door plate is damaged if not allocated correctly.*



### Note

Observe the chapter of installation notes, bonding new outer door plate. Refer to ["1.11 New Outer Door Plate, Installation Notes for Adhering", page 103](#).

- Old (damaged) outer door plate with retaining tracks removed. Refer to ["1.8 Outer Door Panel, Removing and Installing", page 93](#).



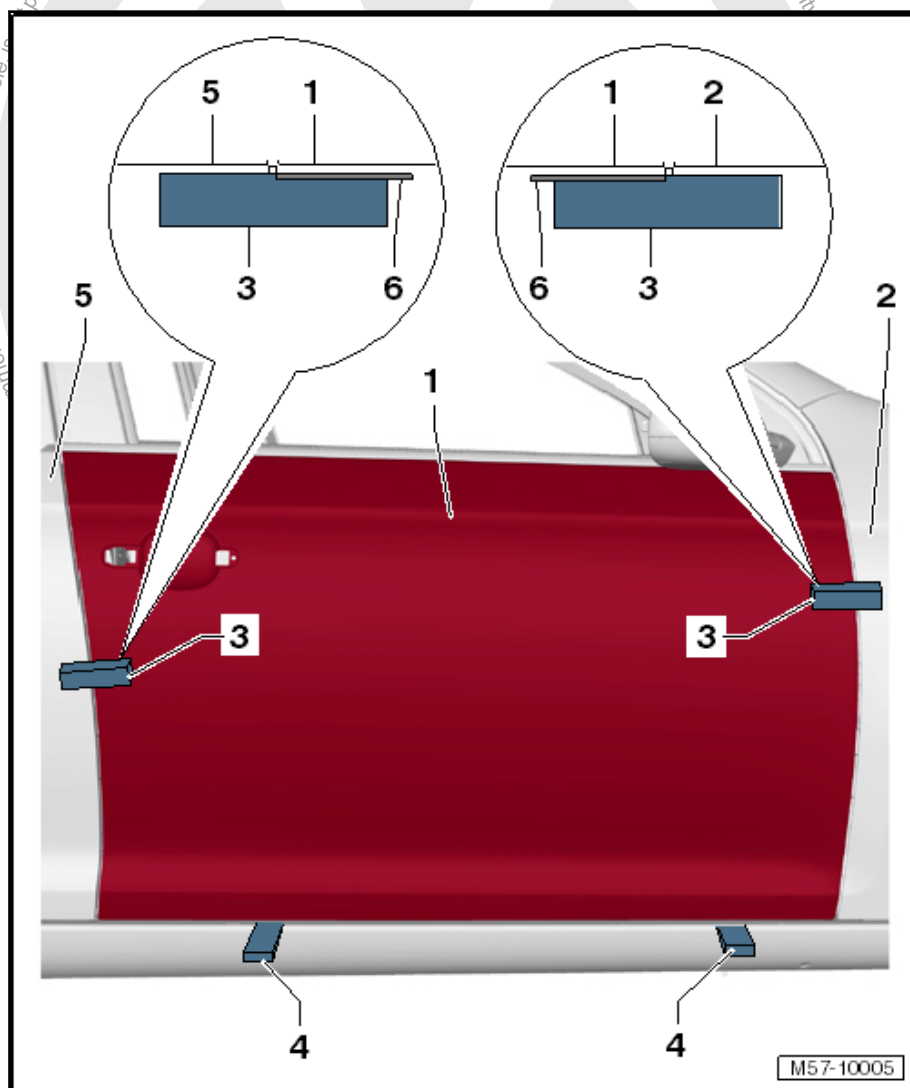
- Install front -2- and rear -6- retaining tracks on door inner part -1-.

Tightening specification for bolts -3- and -5-: 14 Nm





- Screw two guide bolts -4- into lower edge of door inner part -1-.



The painted outer door plate is fitted first without applying adhesive.

To fit the outer door plate, assembly blocks -3- from Door Panel Assembly Set - T10237- are required. A strip of double-sided tape -6- is attached to the lowered side. The pin has the minimum dimension for the gap width. The surface without adhesive is placed onto the neighboring component until it makes contact.

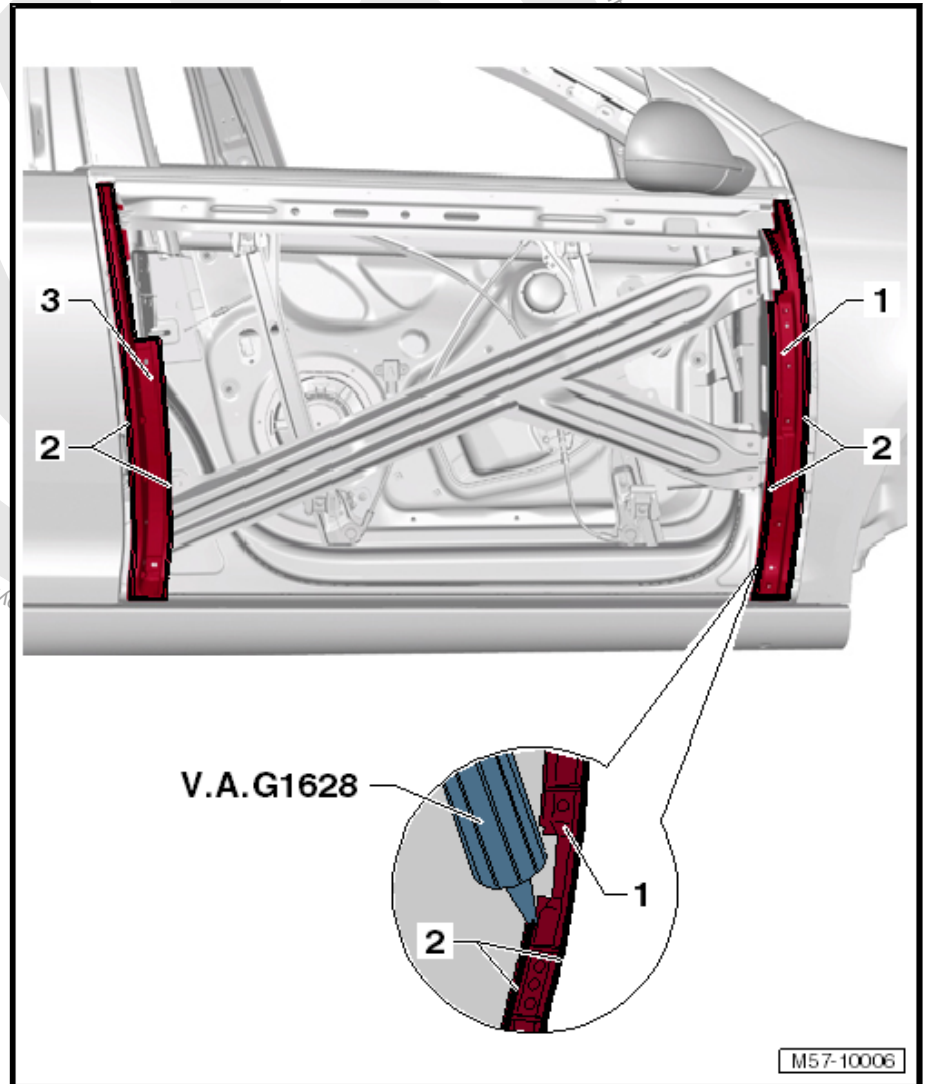
- Adhere assembly blocks -3- onto outer door plate -1-.
- Guide the outer door plate -1- in lower edge of door inner part via the guide bolts.
- Using wedges -4- from the Door Panel Assembly Set - T10237- , adjust the gap dimension to sill panel and outer door plate height.
- Place outer door plate -1- with assembly blocks onto neighboring components -2- and -5-.



- Check the gap dimension using the Gauge - Gap Adjustment - 3371- . Refer to ⇒ Body Repair: Rep. Gr. 00 ; Technical Data; Body Gap Dimensions; Center Body .

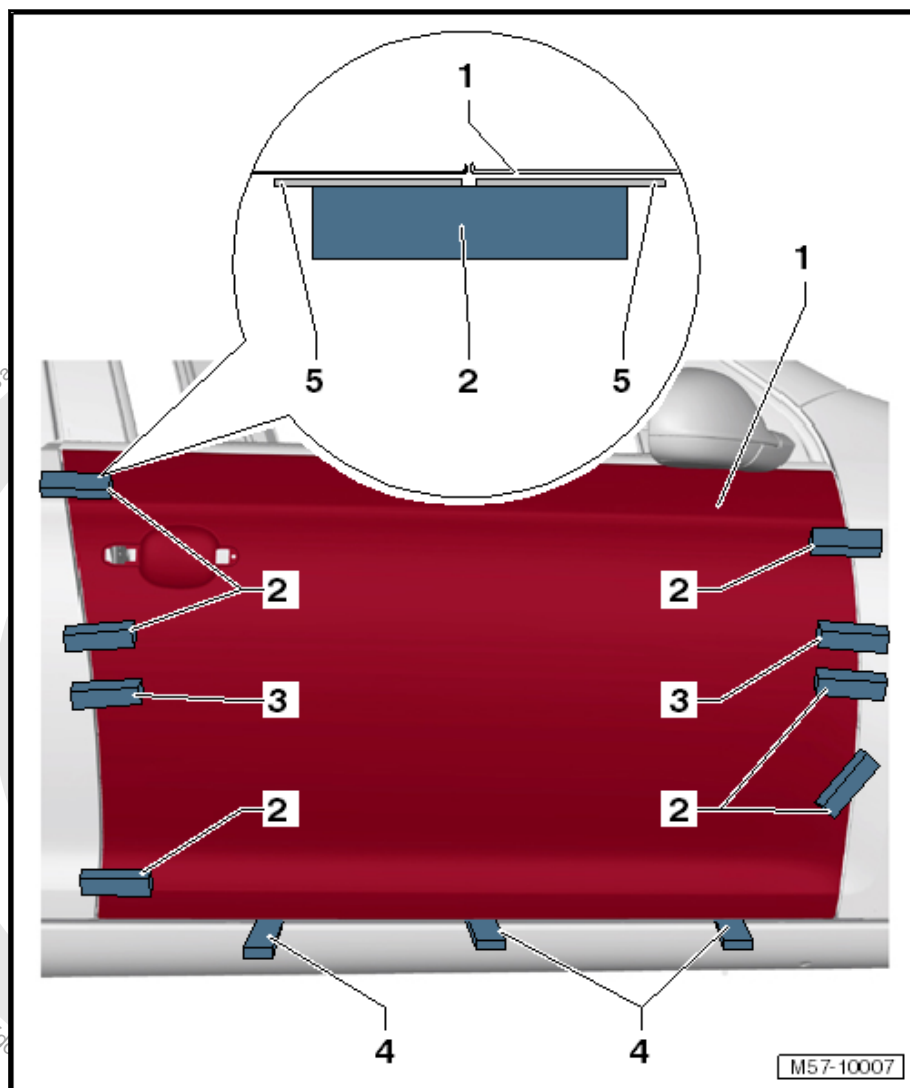
The entire door must be adjusted if the gap dimensions cannot be adjusted any more. Refer to ⇒ [“1.7 Door Adjustment”, page 89](#) .

- Remove the outer door panel again.



- Apply the adhesive beads -2- onto the front -1- and rear -3- rails using the Cartridge Gun - V.A.G 1628- .





To insert the outer door plate, securing blocks -2- from Door Panel Assembly Set - T10237- are required. Two strips of double-sided tape -5- are applied to the contact surface.

- Guide the outer door plate -1- in lower edge of door inner part via the guide bolts.
- Bring the outer door plate with assembly blocks -3- into contact with neighboring components.
- Using the wedges -4- from assembly tool set, adjust gap dimension to sill panel and outer door plate height.
- Check the gap dimensions using the Gauge - Gap Adjustment - 3371- . Refer to ⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Gap Dimensions; Center Body .
- Affix short securing blocks -2- uniformly onto door to be replaced and neighboring components.



#### Note

*There must be a waiting period of 90 or 180 minutes before performing further work on the bonded door. Refer to ⇒ [“1.12 Minimum Curing Time”, page 103](#) .*

- Install the outer door panel in reverse order of installation.





## 1.10 Outer Door Plate Retaining Track, Removing and Installing

⇒ [1.10.1 Rail, Removing](#), page 101

⇒ [1.10.2 Rail, Installing](#), page 102

### 1.10.1 Rail, Removing



#### WARNING

*The following work must be performed very carefully. Since the outer door plate is to be re-used, dents and scratches must be prevented.*

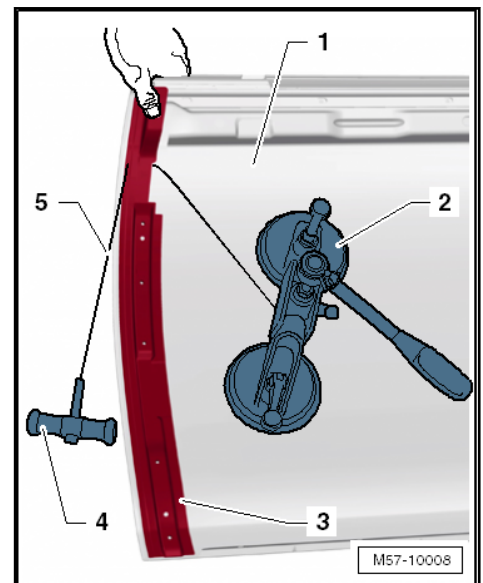
*When cutting through adhesive bead, always hold retaining track and outer door plate together as shown in the illustration. Otherwise, outer door plate flaps off the retaining track and must no longer be used again.*



#### Note

*The following work is to be performed only with a second mechanic.*

- Outer door plate with retaining tracks removed. Refer to ⇒ [1.8.1 Removing](#), page 93 .
- Store the outer door plate -1- on a firm surface and protect outer door plate against scratches.
- Secure the reel device -2- on the outer door panel -1-.
- Secure the cord -5- onto reel device -2- and counterholder -4-.
- Hold the retaining track and the outer door panel firmly together when cutting through adhesive bead.
- Using cord, cut through adhesive bead from retaining track -3- and outer door plate -1- until slightly out over the center.





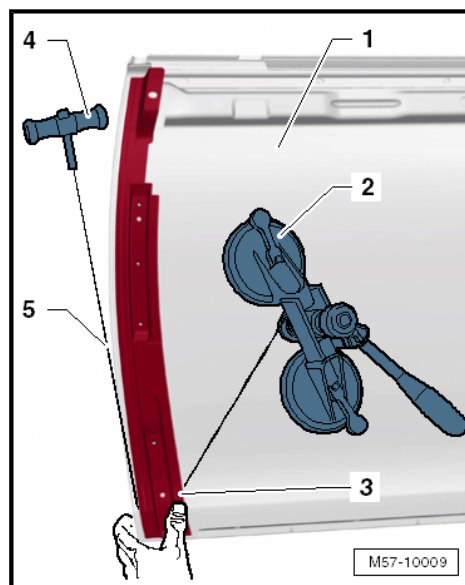


- After adhesive bead has been cut up to halfway in the first step, move the reel device -2- and insert cord -5- on the side not yet cut.
- Hold the retaining track -3- and outer door panel -1- firmly together when continuing to cut through adhesive bead.
- Cut through the second half of the adhesive bead.



#### Note

*If the paint on the outer door panel was damaged, repair the paint coat according to the instructions in the "Paint" repair manual.*



### 1.10.2 Rail, Installing

- With utmost care, cut remaining adhesive bead on the outer door panel up to the highest possible minimum without damaging paint work while doing so.
- Further work steps are described in the "installing new outer door plate" chapter. Refer to ⇒ ["1.9 New Outer Door Panel, Installing", page 97](#) .



#### Note

*"Installation notes for adhering new outer door plate" are also to be followed for the installation of a new retaining track.*

- Install a new rail onto door inner panel on location of the removed rail.
- Apply adhesive onto the new rail.
- Fasten the door panel on lower edge and on the rail not cut.
- Secure the outer door panel to the new rail with the securing blocks from the Door Panel Assembly Set T10237- and double-sided tape.





## 1.11 New Outer Door Plate, Installation Notes for Adhering



### Note

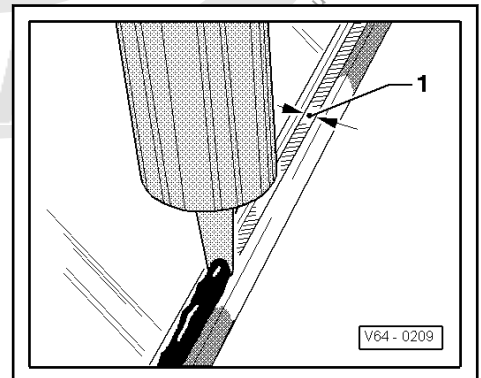
- ◆ *If the front and rear outer door plate must be replaced, then this is performed at the same time. For the adhesion of both outer door plates, the long securing blocks from the Door Panel Assembly Set - T10237- are adhered for the change-over from the front to the rear outer door plate.*
- ◆ *If the paint on the outer door panel was damaged, repair the paint coat according to the instructions in the "Paint" repair manual.*
- ◆ *The one-part window adhesive -DH 009 100 A2- must be warmed up for 20 minutes in the Cartridge Heater - V.A.G 1939 A- .*
- Clean application surfaces thoroughly with cleaning solution -D 009 401 04- .
- Apply primer -2- to the freshly painted adhesive surfaces evenly in one stroke using applicator D 009 500 25 -1-.
- ◆ Drying time is approximately 10 minutes
- Apply the adhesive material using the Cartridge Gun - V.A.G 1628- onto the rail application surfaces at a right angle to the rail.



### WARNING

***Outer door plate must be installed within 10 minutes, otherwise bonding properties of adhesive will be impaired.***

- Place the outer door panel onto rails using both assembly blocks from Door Panel Assembly Set - T10237- , and align using wedges and Gauge - Gap Adjustment - 3371- . Press contact surfaces of assembly blocks onto the neighboring components.
- During the curing time, secure the outer door panel using securing blocks from the Door Panel Assembly Set - T10237- .
- After installing, align outer door plate to the other components and gap dimensions must be uniform.
- If the adhesive bead has been applied too thickly and the adhesive expands out between retaining track and outer door plate, remove the excess adhesive. Refer to ["1.13 Adhesive Sealant, Removing from Window", page 104](#) .



## 1.12 Minimum Curing Time



### WARNING

***Special requirements must be fulfilled for replacing bonded outer door plates. This includes, for example, a newly bonded outer door plate is safe for vehicle operation also in case of an accident after a specified minimum curing time.***





The minimum curing time for outer door panel with one-part adhesive -DH 009 100 A2- is 180 minutes.

By minimum curing time, it is meant the time from bonding in the outer door plate up to use in the vehicle, or until further work can be performed. During this time, the vehicle must stand on an even surface at room temperature (at least 15 °C (59 °F)).



#### WARNING

*The vehicle is operationally ready only after the minimum curing time has elapsed.*

### 1.13 Adhesive Sealant, Removing from Window

- Adhesive Remover -D 002 000 10- is recommended as a cleaning solution. Follow all safety precautions when processing.



#### Caution

*When cleaning the vehicle, outer door plate bonded in immediately beforehand must not be shifted.*

- First clean the paint surface coarsely using a dry cloth. Remove any remaining dirt using the adhesive remover -D 002 000 10-.
- Clean the plastic trim panel: let the adhesive sealant harden (approximately one hour) and then peel it off.

### 1.14 Overview - Door Inner Panel



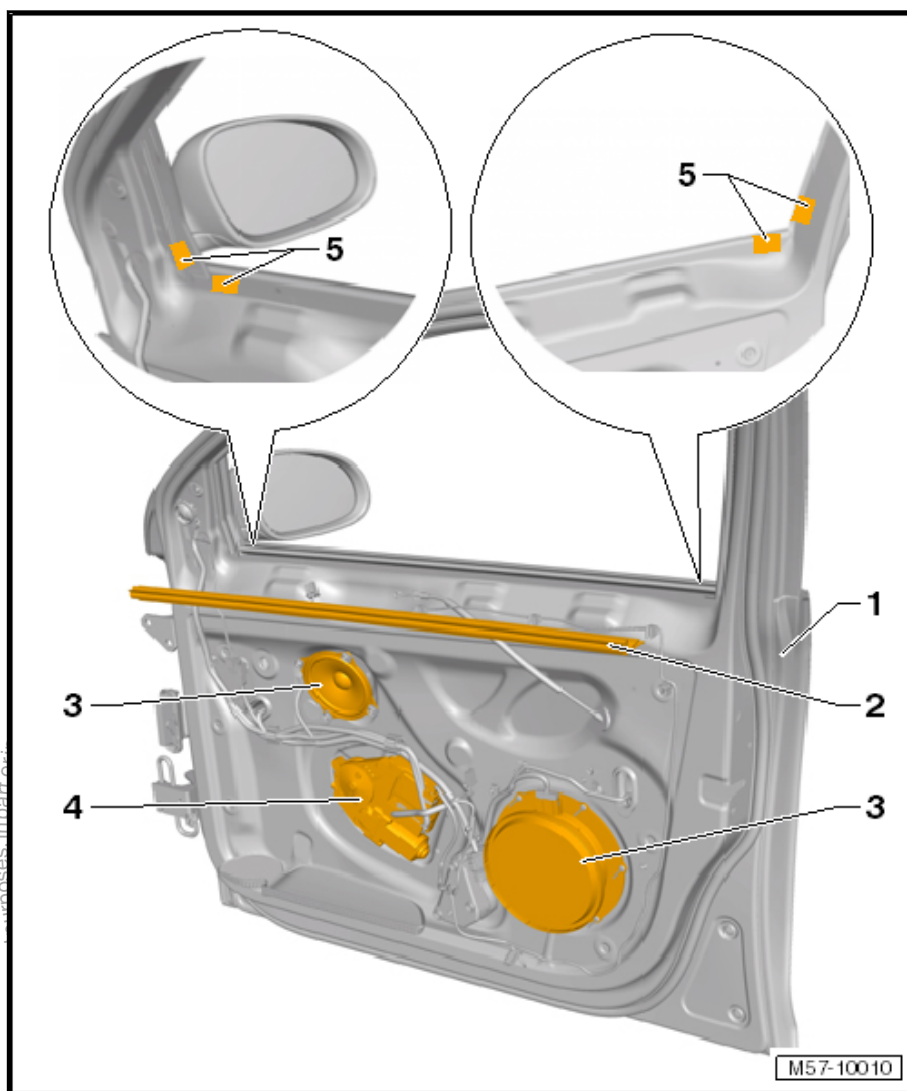
#### Note

*The illustration shows the right side. The left side is identical.*





- 1 - Door Inner Panel
- 2 - Inner Window Shaft Seal
- 3 - Speaker
- 4 - Window Regulator Motor
  - ❑ Removing and Installing. Refer to ["2.4 Window Regulator Motor, Removing and Installing", page 253](#).
- 5 - Insulation
  - ❑ Quantity: 4
  - ❑ 20 mm x 40 mm commercially available cloth reinforced adhesive tape



## 1.15 Overview - Door Handle and Door Lock



### Note

*The illustration shows the left side. The right side is identical.*





#### 1 - Cable

- ❑ From the interior door mechanism to the lock release mechanism

#### 2 - Bolt

- ❑ Quantity: 2
- ❑ 18 Nm

#### 3 - Door Lock

- ❑ Removing and Installing. Refer to ➤ ["1.19 Door Lock, Removing and Installing", page 111](#).

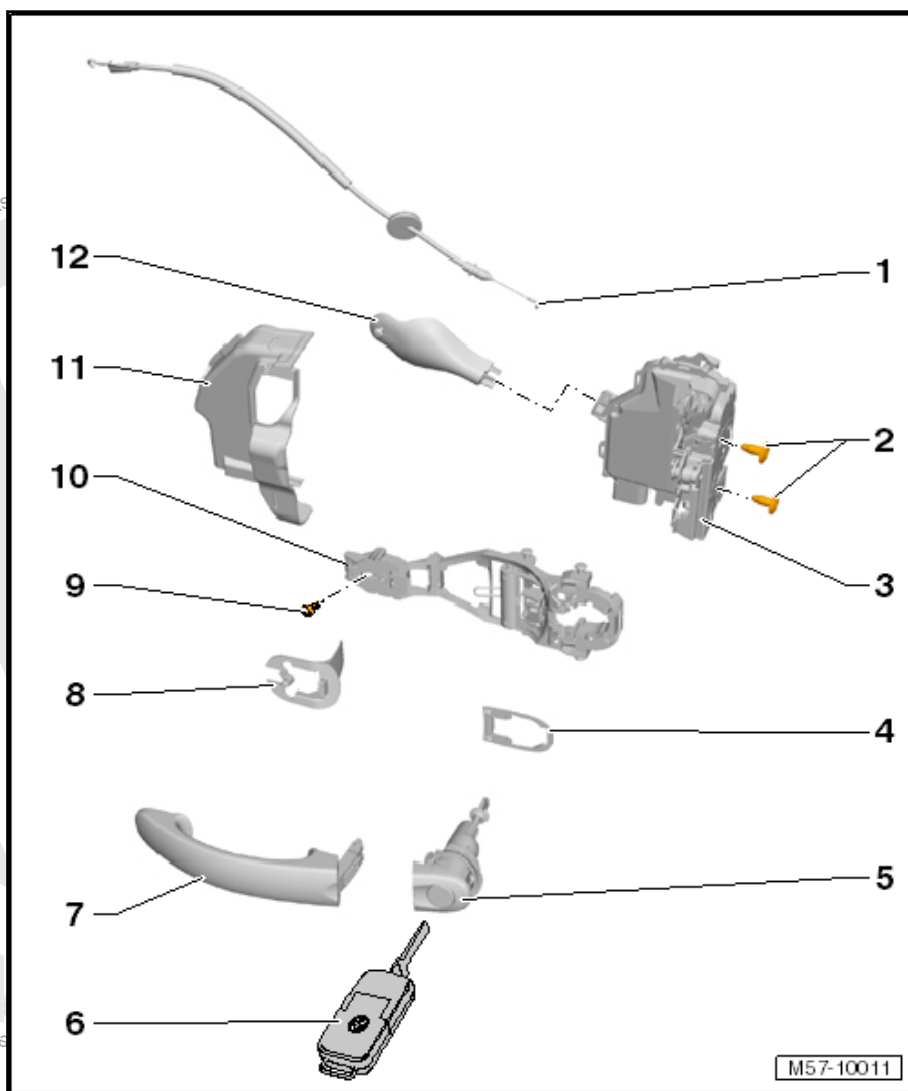
#### 4 - Backing Plate

#### 5 - Lock Cylinder with Cover

- ❑ Only on the driver side
- ❑ Only one housing is installed on front passenger side
- ❑ Removing and Installing. Refer to ➤ ["1.16 Lock Cylinder, Removing and Installing", page 107](#).

#### 6 - Key

- ❑ Battery, Changing. Refer to ➤ ["2.3 Overview - Remote Control Key \(Foldable\) Battery", page 122](#).
- ❑ Adapting new/additional keys to remote control and immobilizer. Refer to ➤ ["2.2 Remote Control Keys, Adapting", page 122](#).



#### 7 - Door Handle with Backing Plate

- ❑ Removing and Installing. Refer to ➤ ["1.17 Door Handle, Removing and Installing", page 108](#).

#### 8 - Backing Plate

- ❑ Is a component of door handle

#### 9 - Bolt

- ❑ 4.5 Nm

#### 10 - Mounting Bracket

- ❑ Removing and Installing. Refer to ➤ ["1.18 Mounting Bracket, Removing and Installing", page 110](#).

#### 11 - Door Lock Cover

- ❑ Secured with retaining tabs to door lock

#### 12 - Cable Cover

- ❑ Secured with retaining tabs to door lock





## 1.16 Lock Cylinder, Removing and Installing

⇒ "1.16.1 Removing", page 107

⇒ "1.16.2 Installing", page 107

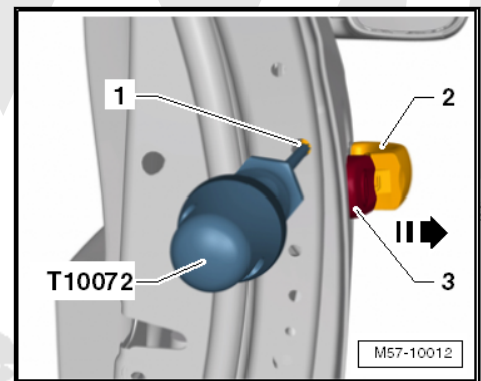


### Note

*The removal and installation procedure applies to the housing on the front passenger side. Removing and installing lock cylinder is identical.*

### 1.16.1 Removing

- Remove the front door cover ⇒ [page 94](#) .
- Pry out cover cap in front of bolt -1-.
- Pull the door handle -2- in -direction of the arrow- and remove the bolt -1- until it stops using the Wrench - Driver - T10072- .
- Pull out the housing -3-.



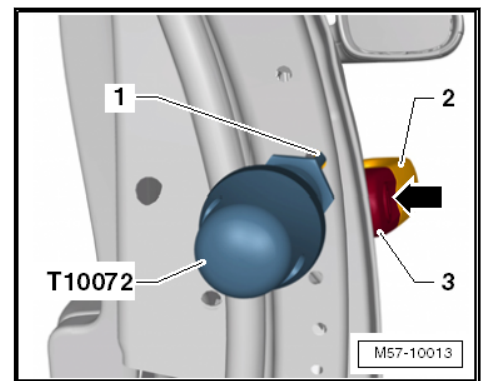
### 1.16.2 Installing

- Insert the housing -3- in the door at a right angle.
- Door handle -2- must make contact only lightly at door plate.
- Now tighten the bolt -1- all the way using the Wrench - Driver - T10072- .
- The door handle -2- engages again into the housing -3- with a very audible click.



### Note

*During installation, housing must be pressed onto door plate. The door handle rests only lightly against the door panel.*



Perform the rest of the installation in the reverse order of removal.

Then a function test must be performed when the door is open, since the door cannot be opened if the release cable is not correctly adjusted or clipped in.





## 1.17 Door Handle, Removing and Installing

⇒ ["1.17.1 Removing", page 108](#)

⇒ ["1.17.2 Installing", page 108](#)

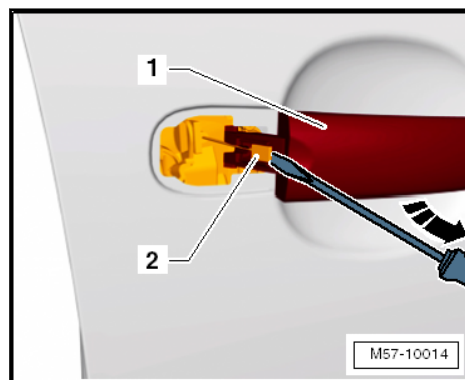


### Note

*The following describes the removal and installation of the right door handle. Removing and installing the left door handle is identical.*

### 1.17.1 Removing

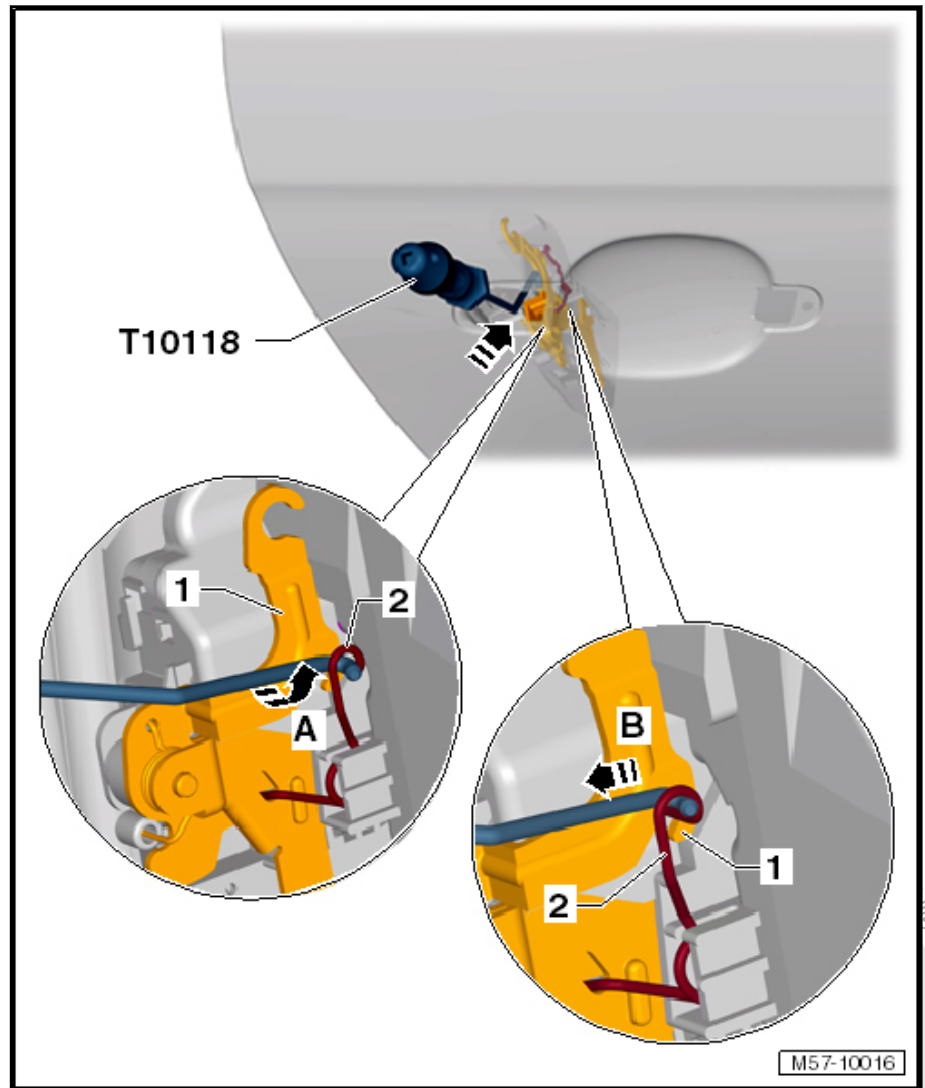
- Remove the housing. Refer to ⇒ ["1.16 Lock Cylinder, Removing and Installing", page 107](#).
- Pry the clip -2- out of the door handle -1-.
- Swing the door handle -1- out of door -arrow-.



### 1.17.2 Installing







- Guide the Elbow Assembly Tool - T10118- in the door through the opening in the outer door panel.
- Illuminate the door inner panel using a flashlight for better view.
- Engage the Elbow Assembly Tool - T10118- in the spring -2- -arrow A-.
- Pull the Elbow Assembly Tool - T10118- -arrow B- to engage the spring -2- in the door lock release lever 1-.

The release lever is now locked into position.



#### Note

*Engaging the spring in the release lever secures the lock. This prevents the cable from being clipped in at the door handle incorrectly.*





- Pivot the door handle -1- into the door.
- Pull the clip -2- into the plate cutout and lock the clip in the door handle -1- -arrow-.

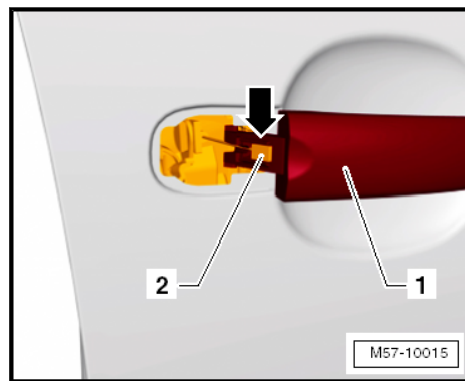


#### Note

- ◆ Press the door handle -1- onto the door panel during installation.
- ◆ Clip -2- must engage into door handle -1- with a very audibly click.

- Install the housing. Refer to ⇒ [“1.16.2 Installing”, page 107](#) .

Then a function test must be performed when the door is open, since the door cannot be opened if the release cable is not correctly adjusted or clipped in.



## 1.18 Mounting Bracket, Removing and Installing

⇒ [“1.18.1 Removing”, page 110](#)

⇒ [“1.18.2 Installing”, page 111](#)



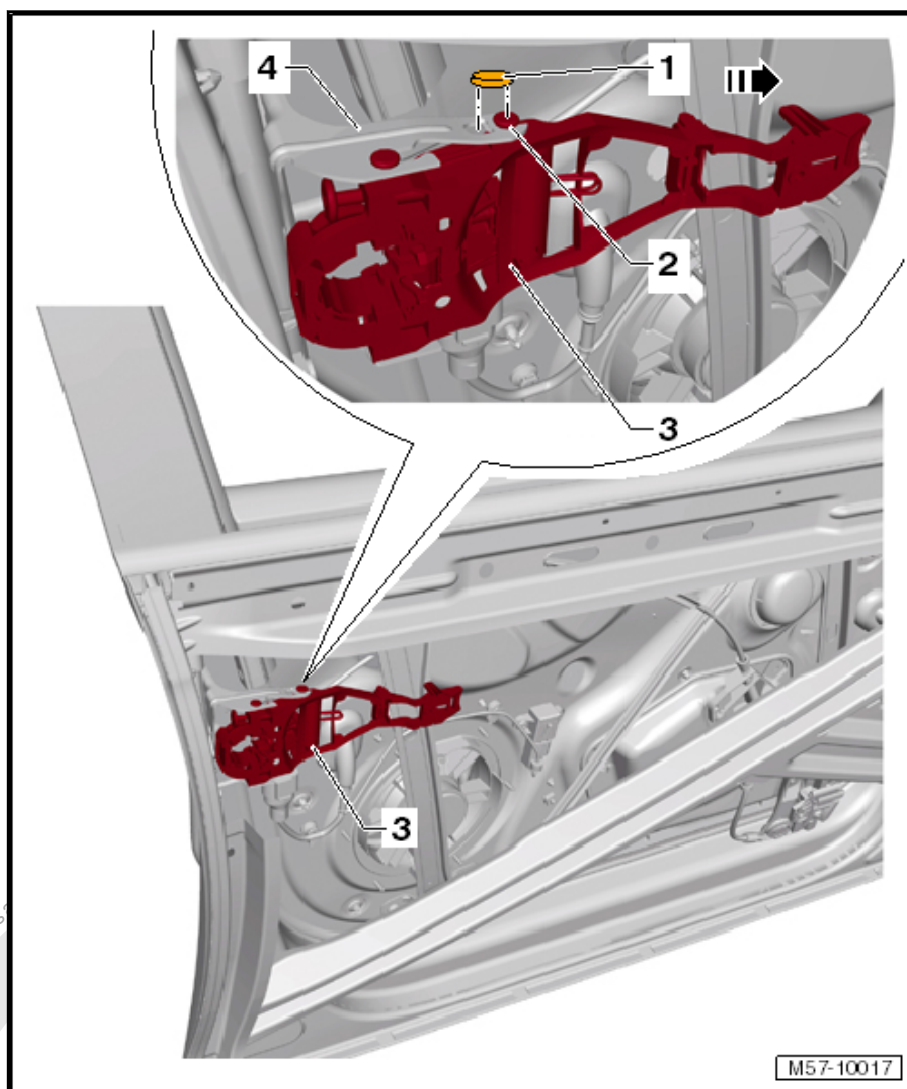
#### Note

*The following describes the removal and installation of the right mounting bracket. Removing and installing the left mounting bracket is identical.*

### 1.18.1 Removing

- Remove the outer door panel. Refer to ⇒ [“1.8 Outer Door Panel, Removing and Installing”, page 93](#) .





- Remove the retaining grommet -1- upward from the guide pin -2-.
- Remove the mounting bracket -3- in the -direction of the arrow- with the guide pin -2- from the mount -4-.

## 1.18.2 Installing

Install in reverse order of removal.

## 1.19 Door Lock, Removing and Installing

⇒ ["1.19.1 Removing", page 112](#)

⇒ ["1.19.2 Installing", page 112](#)



### Note

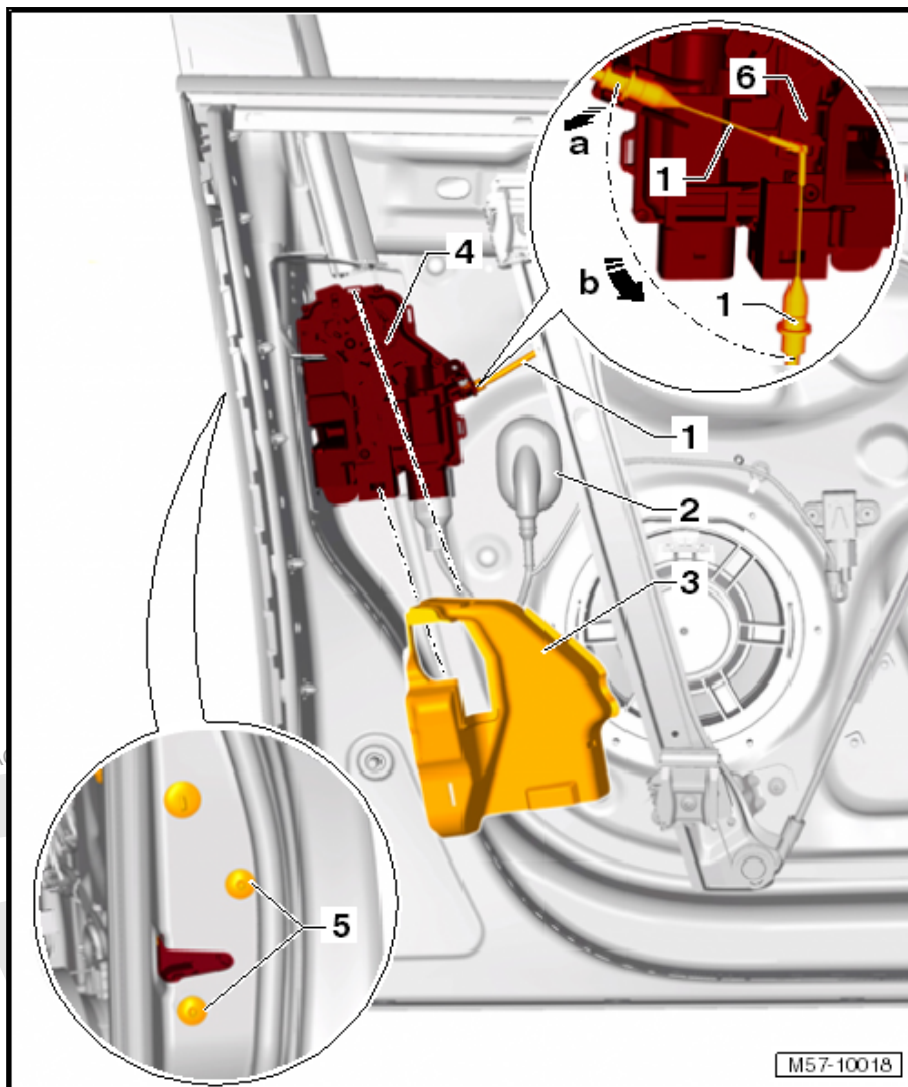
*The following describes removing and installing the right door lock. Removing and installing the left door lock is identical.*





### 1.19.1 Removing

- Remove the mounting bracket. Refer to ⇒ [“1.18 Mounting Bracket, Removing and Installing”, page 110](#).



- Disconnect the connector -2- on the door latch -4-.
- Remove the screws -5-.
- Remove the door lock and loosen the cable -1- from the support bracket -arrow a- on the rear side.
- Swivel the cable -1- in the direction of -arrow b- and disengage it from the actuator lever -8-.

The cover -3- is secured on the door lock with tabs and is not part of the door lock delivery package.

### 1.19.2 Installing

Install in reverse order of removal.

Bolt tightening specification: 18 Nm.

Then a function test must be performed when the door is open, since the door cannot be opened if the release cable is not correctly adjusted or clipped in.



## 1.20 Overview - Side Impact Protection

### 1 - Side Impact Protection

- ❑ The outer door panel must be removed to remove and install. Refer to ⇒ ["1.8 Outer Door Panel, Removing and Installing", page 93](#).

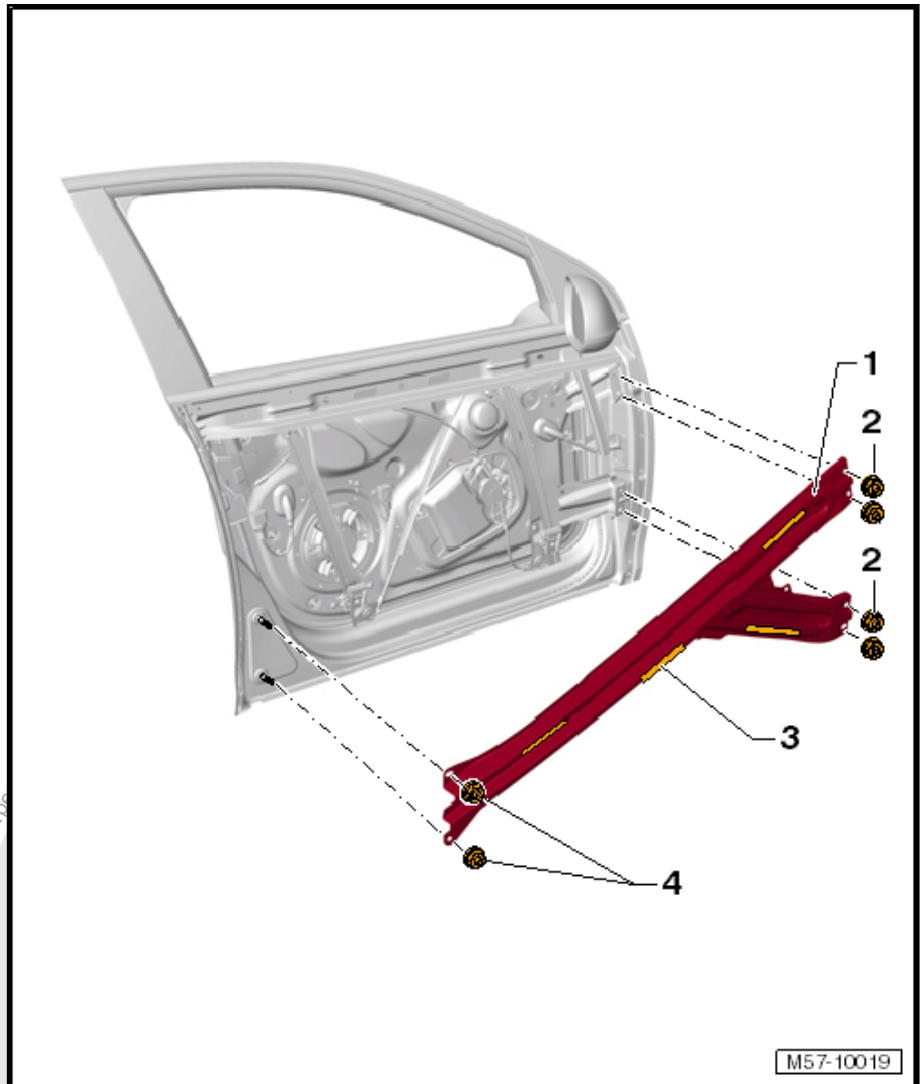
### 2 - Bolt

- ❑ Quantity: 4
- ❑ 20 Nm

### 3 - Insulation

### 4 - Nut

- ❑ Quantity: 2
- ❑ 20 Nm



## 1.21 Inner Door Seal

Inner door seals are equipped at the factory with sealant, applied to door flange and then rolled on.



### Note

- ◆ *When the seal is removed, the sealant spreads on the inner side of the seal and the sides bend up slightly. If the seal is reinstalled, proper function and positioning cannot be guaranteed.*
- ◆ *For this reason, replace every seal that is completely replaced with a "hammer-stroke seal".*
- ◆ *With partially removed seals, press the seal sides together before installing.*





## 1.22 Inner Door Seal, Removing and Installing

⇒ "1.22.1 Removing", page 114

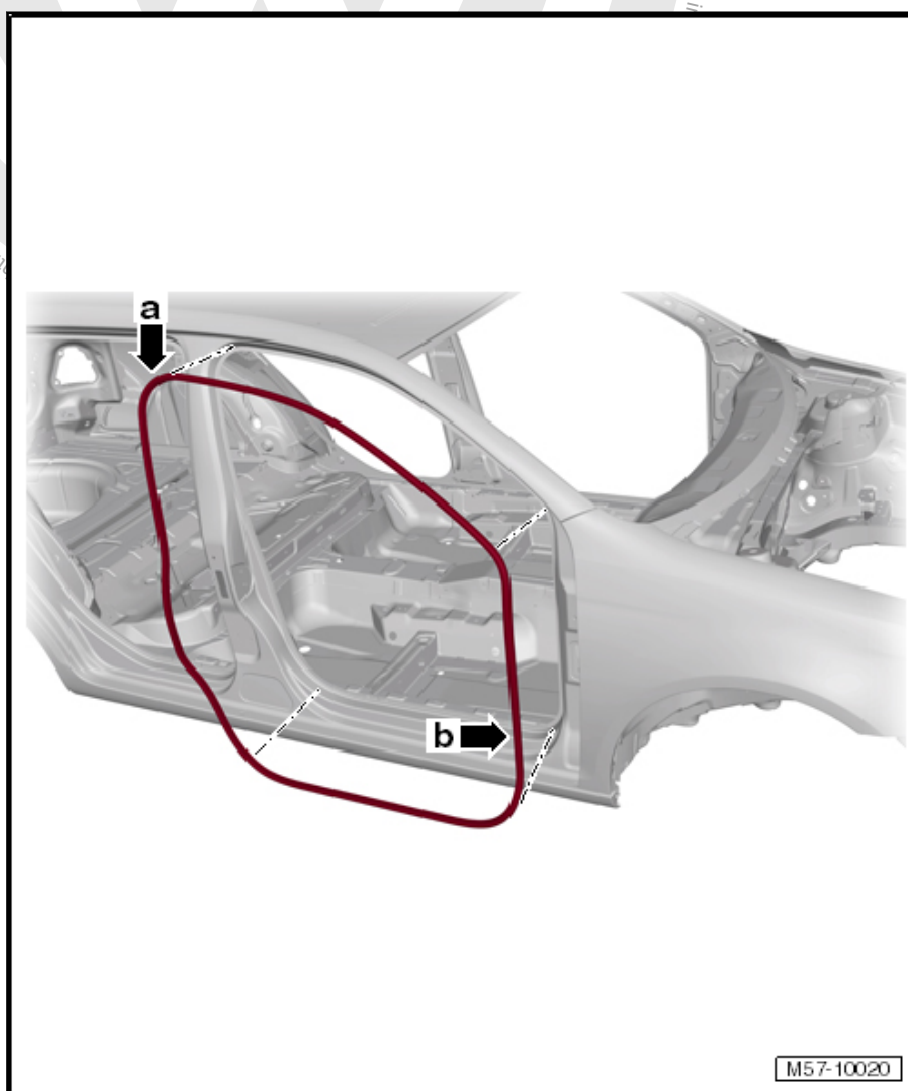
⇒ "1.22.2 Installing", page 114



### Note

*The following describes removing and installing the right inner door seal. Removing and installing the left inner door seal is identical.*

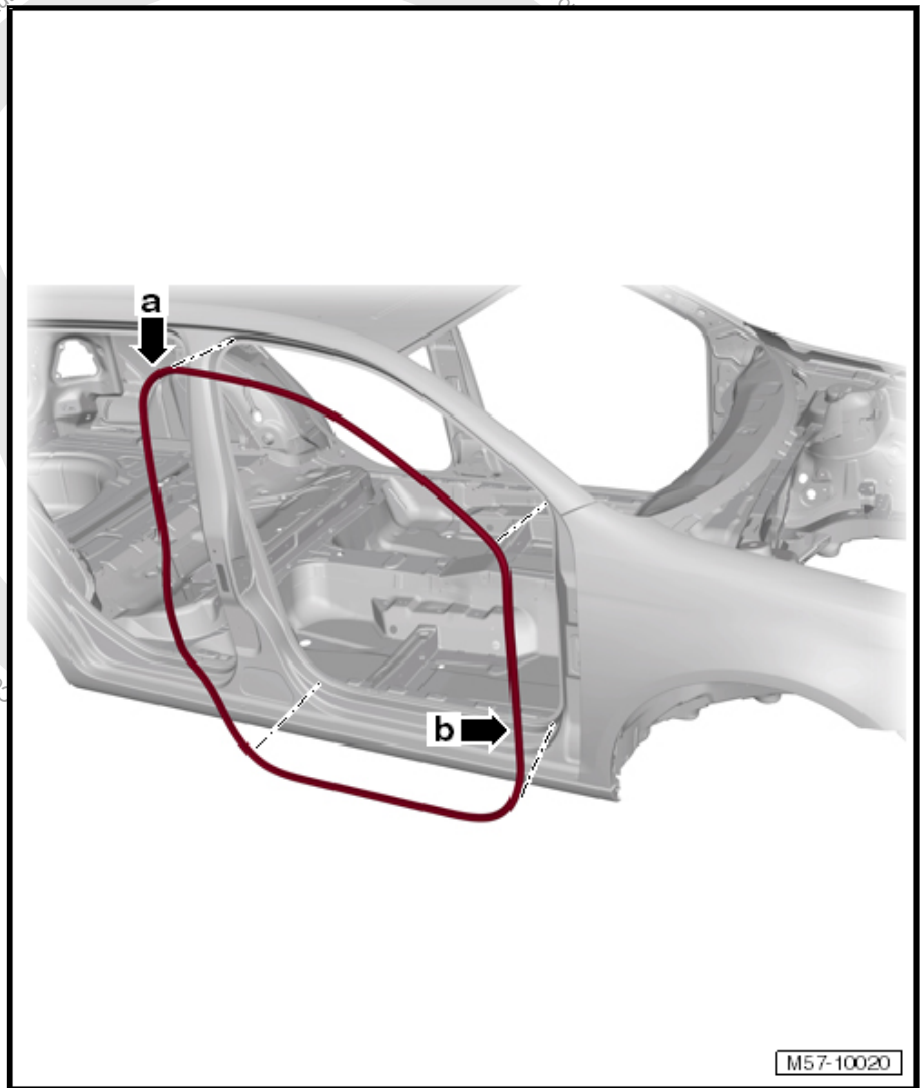
### 1.22.1 Removing



- Pull off the inner door seal from the body flange.

### 1.22.2 Installing





- Align inner door seal with vulcanized point -arrow b- at the height of the lower hinge.
- Start installation of inner door seal in upper radius -arrow a- of door cutout.

## 1.23 Outer Door Seal, Removing and Installing

⇒ [“1.23.1 Removing”, page 115](#)

⇒ [“1.23.2 Installing”, page 116](#)

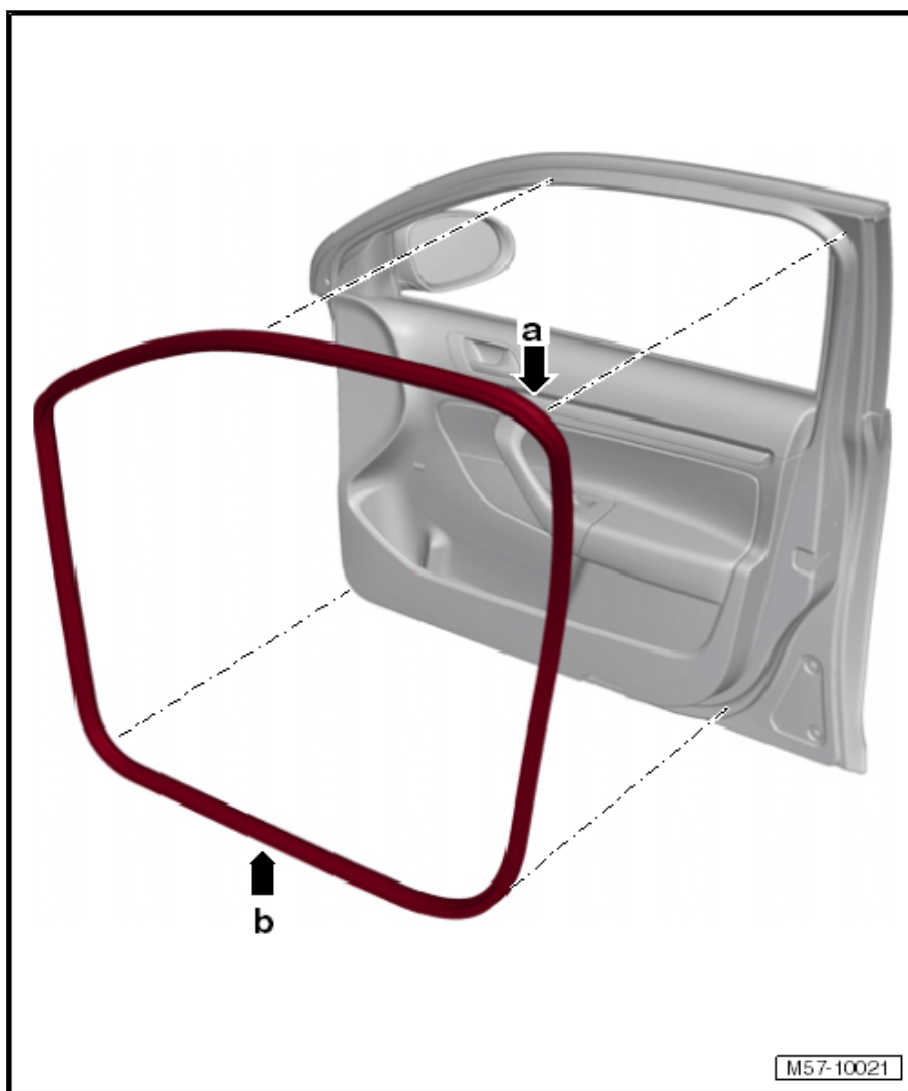


### Note

- ◆ *The following describes removing and installing the right outer door seal. Removing and installing the left outer door seal is identical.*
- ◆ *Only remove the protective film right before assembly. Processing temperature approximately 20 °C (68 °F).*

### 1.23.1 Removing



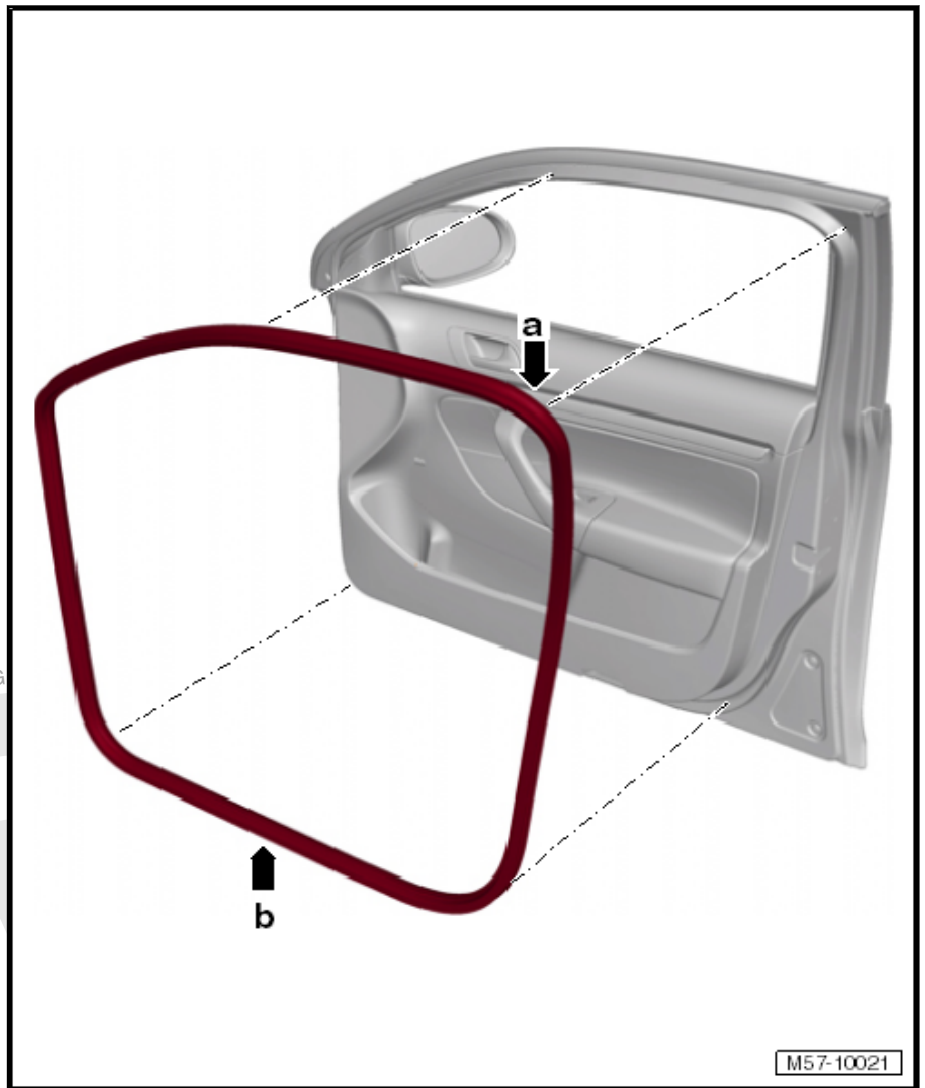


- Pull off outer door seal from door.

### 1.23.2 Installing

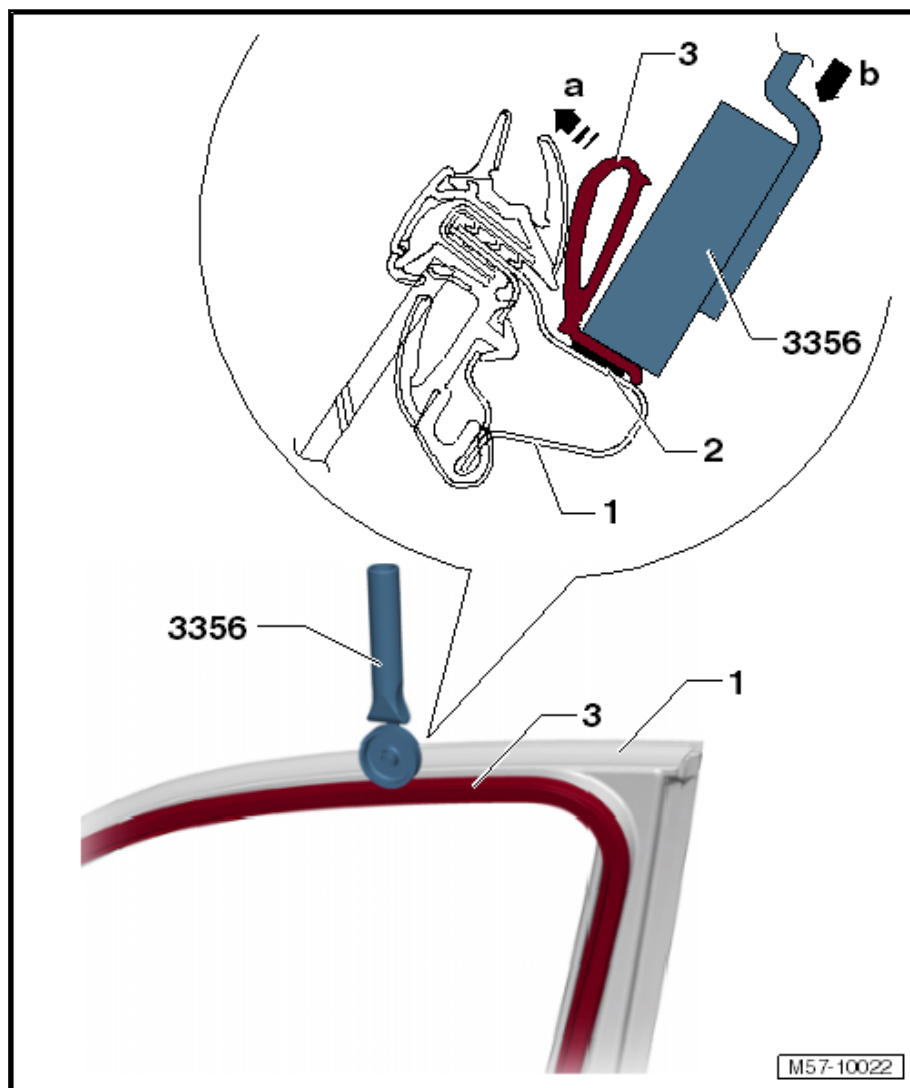
- If there is adhesive residue, remove it with the eraser disc for the Adhesive Strip Remover - VAS 6349.
- Thoroughly clean the adhesive surface with Adhesive Remover - D 002 000 10- right before installing the outer door seal.
- The adhesive surface must not have any dust, grease or adhesive residue on it.





- Align the outer door seal so that the point where it will be bonded -arrow b- is located in the center area of the sill panel.
- Begin installing the outer door seal in the upper curve -arrow a-.
- Remove the protective film and apply the seal to the door. Do not stretch the outer door seal excessively so that the seal is not too long at the end.





- Press the entire adhesive surface of the seal -3- firmly all around the door -1- using the Roller - 3356- .
- In this way, the seal is pressed so far into the side -arrow a- so that the Roller - 3356- comes into direct contact with the seal contact surface.

The force -arrow b- from the roller can only reach the adhesive surface -2- if the procedure described above is used.

- If the seal has become too long, cut it back to the correct length and press on the joint area.
- If the seal -3- comes loose again in small areas, press these on again using the Roller - 3356- .



#### Note

*To ensure that the outer door seal does not loosen or slide again, do not close the door for 2 hours.*





## 2 Central Locking

⇒ [“2.1 Component Location Overview - Central Locking Components”, page 119](#)

⇒ [“2.2 Remote Control Keys, Adapting”, page 122](#)

⇒ [“2.3 Overview - Remote Control Key \(Foldable\) Battery”, page 122](#)

⇒ [“2.4 Remote Control Key Battery, Foldable, Removing and Installing”, page 123](#)

### 2.1 Component Location Overview - Central Locking Components



1 - Alarm Horn H12

- ❑ Component location:  
under the right fender
- ❑ Removal. Refer to  
⇒ Electrical Equip-  
ment; Rep. Gr. 96 ;  
Interior Lights, Lamps  
Switches, Anti-Theft  
Protection, Anti-Theft  
Alarm System, Alarm  
Horn H12.

## 2 - Connector Station

- ❑ Component location:  
left A-pillar
- ❑ Loosen the boot on the  
pillar to disconnect the  
connector

### 3 - Comfort System Central Control Module -J393-

- ❑ Installed location: under the instrument panel on the front passenger side and behind the glove compartment
- ❑ Removal. Refer to ⇒ Electrical Equipment; Rep. Gr. 97 ; Wires; Control Modules; Comfort System Central Control Module J393.

#### 4 - Front Passenger Door Control Module -J387-

- ❑ Integrated in window regulator motor
- ❑ Removing. Refer to [⇒ “2.4 Window Regulator Motor, Removing and Installing”, page 253](#).

## 5 - Right Front Door Lock

- ☐ The door lock is attached to the door inner panel
- ☐ The power central locking system is integrated in the door lock
- ☐ Removing. Refer to ⇒ “1.19 Door Lock, Removing and Installing”, page 111.

## 6 - Connector Station

- ☐ Component location: right B-pillar
- ☐ Loosen the boot on the pillar to disconnect the connector

## 7 - Right Rear Door Control Module -J389-

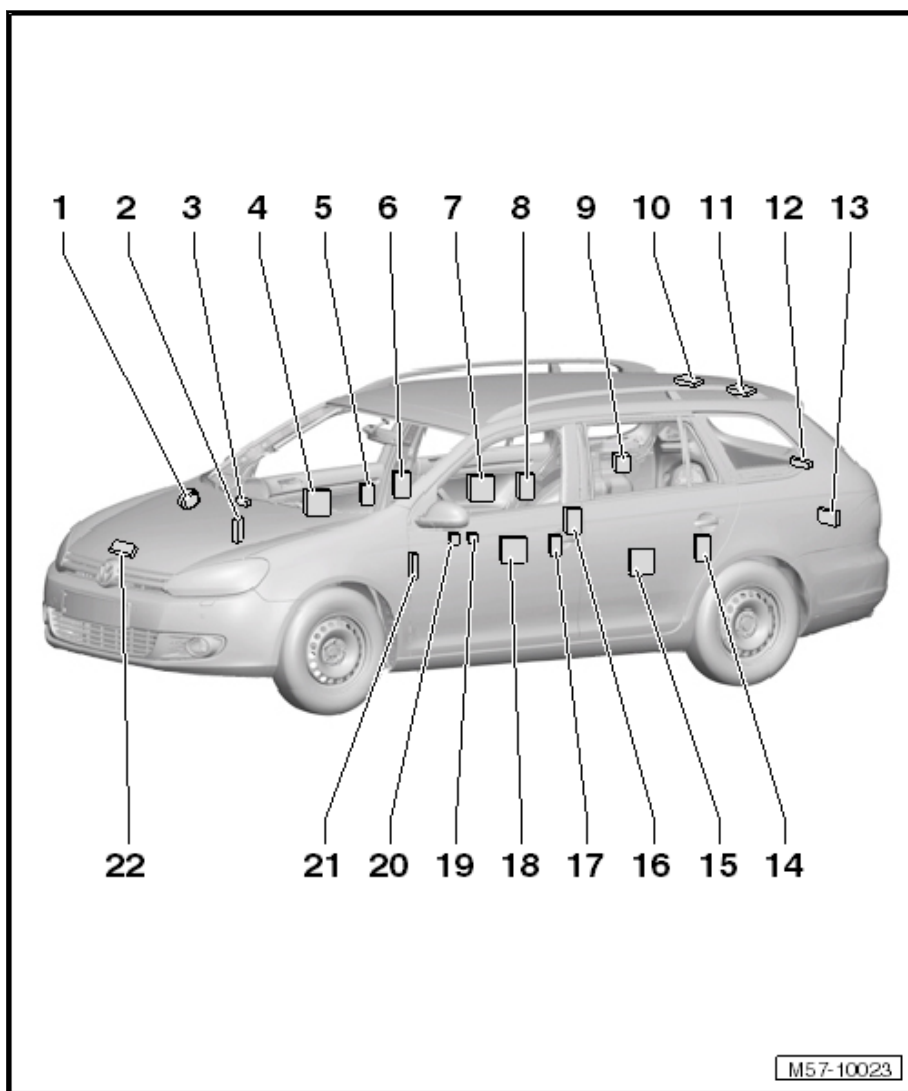
- ❑ Integrated in window regulator motor
- ❑ Removing. Refer to ⇒ “5.9 Window Regulator Motor, Removing and Installing”, page 274.

## 8 - Right Rear Door Lock

- ☐ The door lock is attached to the door inner panel
- ☐ The power central locking system is integrated in the door lock
- ☐ Removing. Refer to ⇒ “2.7 Door Lock, Removing and Installing”, page 145.

### 9 - Fuel Filler Door Unlock Motor -V155-

- ❑ Component location: attached to the right side panel. Refer to ⇒ [“4.4 Fuel Filler Door Lock Motor V155 , Removing and Installing”, page 76](#) .







#### 10 - Right Rear Lid Connector Station

- ☐ Component location: on the rear roof crossmember
- ☐ Removal. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim/Insulation; Roof Trim; Upper C-Pillar Trim Panel, Removing and Installing .

#### 11 - Left Rear Lid Connector Station

- ☐ Component location: on the rear roof crossmember
- ☐ Removal. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim/Insulation; Roof Trim; Upper C-Pillar Trim Panel, Removing and Installing .

#### 12 - Rear Lid Handle Unlock Switch -E234-

- ☐ Component location: on the rear lid
- ☐ Removing. Refer to ⇒ ["2.8 Rear Lid Handle Unlock Switch, Removing and Installing", page 65](#) .

#### 13 - Rear Lid Latch

- ☐ Component location: bolted to the rear lid
- ☐ Removing. Refer to ⇒ ["2.9 Latch, Removing and Installing", page 66](#) .

#### 14 - Left Rear Door Lock

- ☐ The door lock is attached to the door inner panel
- ☐ The power central locking system is integrated in the door lock
- ☐ Removing. Refer to ⇒ ["2.7 Door Lock, Removing and Installing", page 145](#) .

#### 15 - Left Rear Door Control Module -J388-

- ☐ Integrated in window regulator motor
- ☐ Removing. Refer to ⇒ ["5.9 Window Regulator Motor, Removing and Installing", page 274](#) .

#### 16 - Connector Station

- ☐ Component location: left B-pillar
- ☐ Loosen the boot on the pillar to disconnect the connector

#### 17 - Left Front Door Lock

- ☐ The door lock is attached to the door inner panel
- ☐ The power central locking system is integrated in the door lock
- ☐ Removing. Refer to ⇒ ["1.19 Door Lock, Removing and Installing", page 111](#) .

#### 18 - Driver Door Control Module VL -J386-

- ☐ Integrated in window regulator motor
- ☐ Removing. Refer to ⇒ ["2.4 Window Regulator Motor, Removing and Installing", page 253](#) .

#### 19 - Window Regulator Central Switch

- ☐ Component location: installed in the door trim panel
- ☐ Window Regulator Central Switch, Removing and Installing. Refer to ⇒ Electrical Equipment; Rep. Gr. 96 ; Electrical Equipment; Interior Lamps, Bulbs, Switches; Door Lamps and Switches .

#### 20 - Central Locking Button

- ☐ Component location: installed in the door trim panel
- ☐ Removing and installing the central locking button. Refer to ⇒ Electrical System; Rep. Gr. 96 ; Electrical Equipment; Lights, Lamps, Interior Switches and Door Switches .

#### 21 - Connector Station

- ☐ Component location: right A-pillar
- ☐ Loosen the boot on the pillar to disconnect the connector

#### 22 - Engine Hood Contact Switch -F266-

- ☐ Contact switch for anti-theft alarm system
- ☐ Component location: on the latch
- ☐ Removing. Refer to ⇒ Electrical Equipment; Rep. Gr. 96 ; Interior Lamps, Bulbs, Switches, Anti-Theft Protection; Lights and Switches in Engine Compartment; Engine Hood Contact Switch F266, Removing and Installing .





## 2.2 Remote Control Keys, Adapting

Use the Vehicle Diagnostic Tester to adapt the remote control keys.

- Select “Guided Fault Finding” on the -Vehicle Diagnostic Tester- .
- Using the “Go to” button, select "Function/Component selection" and the following menu items one after the other:
  - ◆ Body
  - ◆ Electrical Equipment (repair group. 01; 27; 90 to 97)
  - ◆ Vehicle Electrical System Control Module
  - ◆ Functions
  - ◆ Remote Control Key, Adapting



### Note

*If the corresponding prompt occurs during the key adaptation with the Vehicle Diagnostic Tester, then stop the key, as shown, at the Start/Stop button.*



## 2.3 Overview - Remote Control Key (Foldable) Battery





**1 - Key with Variable Code Transponder**

**2 - Radio Frequency Unit Upper Section**

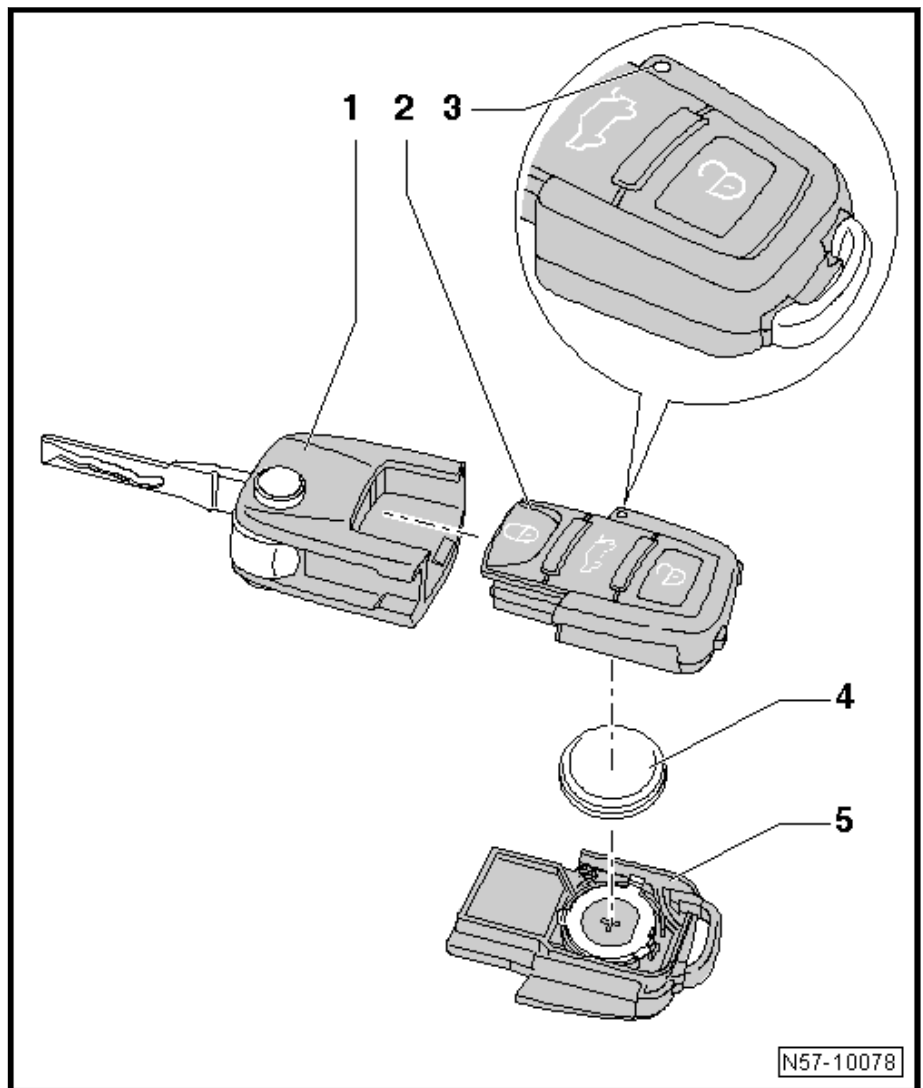
**3 - LED**

- ❑ This LED must blink when remote control is operated.
- ❑ If LED does not blink when using the remote control, replace the battery.

**4 - Battery**

- ❑ Battery, Removing. Refer to ➤ ["2.4.1 Removing", page 123](#).
- ❑ Battery, Installing. Refer to ➤ ["2.4.2 Installing", page 124](#).

**5 - Radio Frequency Unit Lower Section**



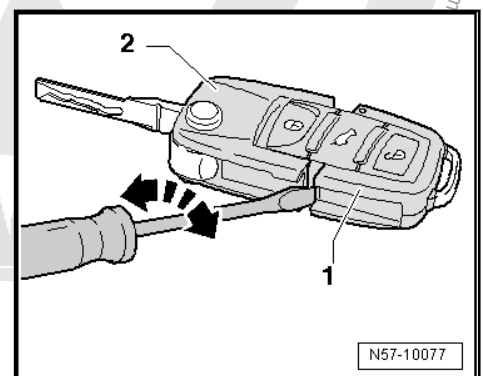
## 2.4 Remote Control Key Battery, Foldable, Removing and Installing

➤ ["2.4.1 Removing", page 123](#)

➤ ["2.4.2 Installing", page 124](#)

### 2.4.1 Removing

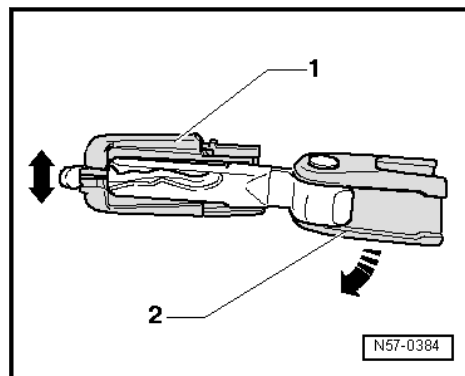
- Insert screwdriver in the slot between radio-frequency unit -1- and key -2-.
- Rotate the screwdriver in the -direction of the arrow- and detach radio frequency unit from key.



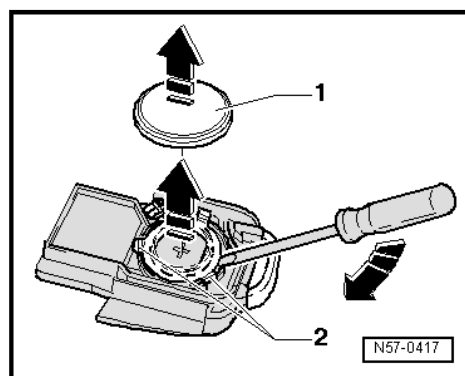




- Press the radio-frequency unit -1- apart with the key bit -2-.



- Use a screwdriver to unclip battery -1- out of holders -2- in the -direction of the arrow-.



## 2.4.2 Installing

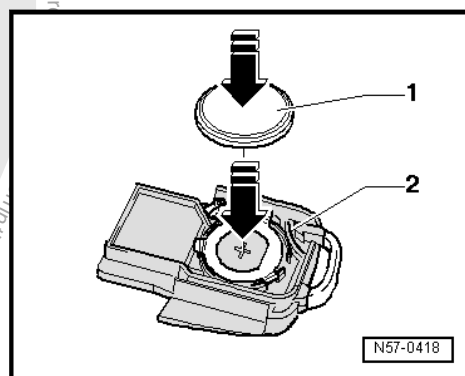


### Note

- ◆ Before installing the battery, one of the buttons must be pushed.
- ◆ This resets the radio-frequency unit, and it can now recognize the new battery.

Keep the correct polarity and position when installing the batteries.

- Place the battery -1- in the radio-frequency unit -2- with positive terminal downward (positive terminal is marked in housing).
- Press the battery lightly to secure it in the radio frequency unit.
- Connect the cover to the radio-frequency unit without damaging the seal.
- Then lock the radio-frequency unit with the key.







## 58 – Rear Doors

### 1 Rear Door

⇒ [“1.1 Tools”, page 125](#)

⇒ [“1.2 Overview - Door Hinges”, page 126](#)

⇒ [“1.3 New Door Hinge, Lubricating”, page 128](#)

⇒ [“1.4 Door, Removing and Installing”, page 129](#)

⇒ [“1.5 Door Adjustment”, page 131](#)

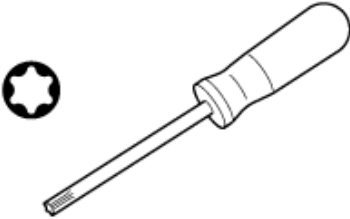
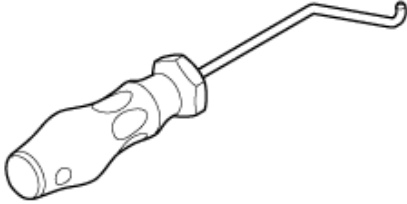
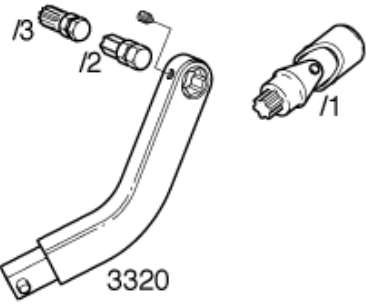
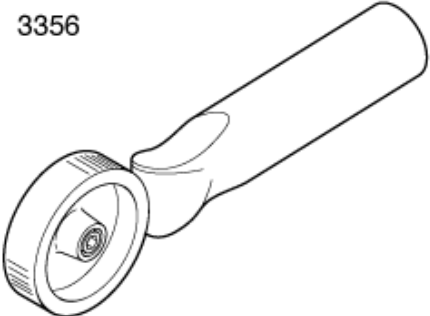

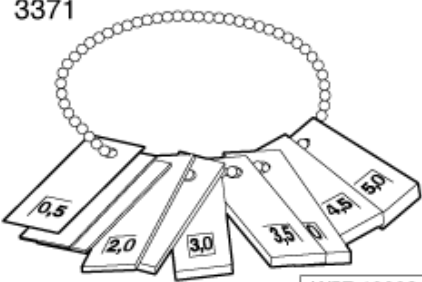


#### Note

*The design of the rear doors is different from the front doors. The outer door panel cannot be removed. The window regulator and the door lock are accessible when the subframe is removed.*

### 1.1 Tools

Special tools and workshop equipment required

<p>T 10072</p> 	<p>T 10118</p> 
 <p>3320</p>	<p>3356</p> 
<p>V.A.G. 1331</p> 	<p>3371</p>  <p>W57-10002</p>





- ◆ Wrench - Driver - T10072-
- ◆ Elbow Assembly Tool - T10118-
- ◆ Wrench - Door Adjusting - 3320- with Wrench - Door Adjusting Wrench - Joint - 3320/1- , Wrench - Door Adjusting - Box Wrench - 3320/2- and Wrench - Door Adjusting - Box Wrench - 3320/3-
- ◆ Roller - 3356-
- ◆ Torque Wrench, 6-50Nm - VAG 1331A-
- ◆ Gauge - Gap Adjustment - 3371-

## 1.2 Overview - Door Hinges



### Note

- ◆ *The illustration shows the right side. The left side is identical.*
- ◆ *Always replace the door hinge bolts after loosening them.*
- ◆ *Hinges are no longer manufactured as separated parts.*
- ◆ *Lubricate the new door hinge if the old one was replaced.*







## 1 - Door

- ☐ Removing and Installing. Refer to ["1.4 Door, Removing and Installing", page 129](#).
- ☐ Adjusting. Refer to ["1.5 Door Adjustment", page 131](#).

## 2 - Guide Bolt

- ☐ Tightening specification: 10 Nm.

## 3 - Door Hinge with Door Arrester

- ☐ Lubricate if the hinge is replaced. Refer to ["1.3 New Door Hinge, Lubricating", page 128](#).

## 4 - Bolt

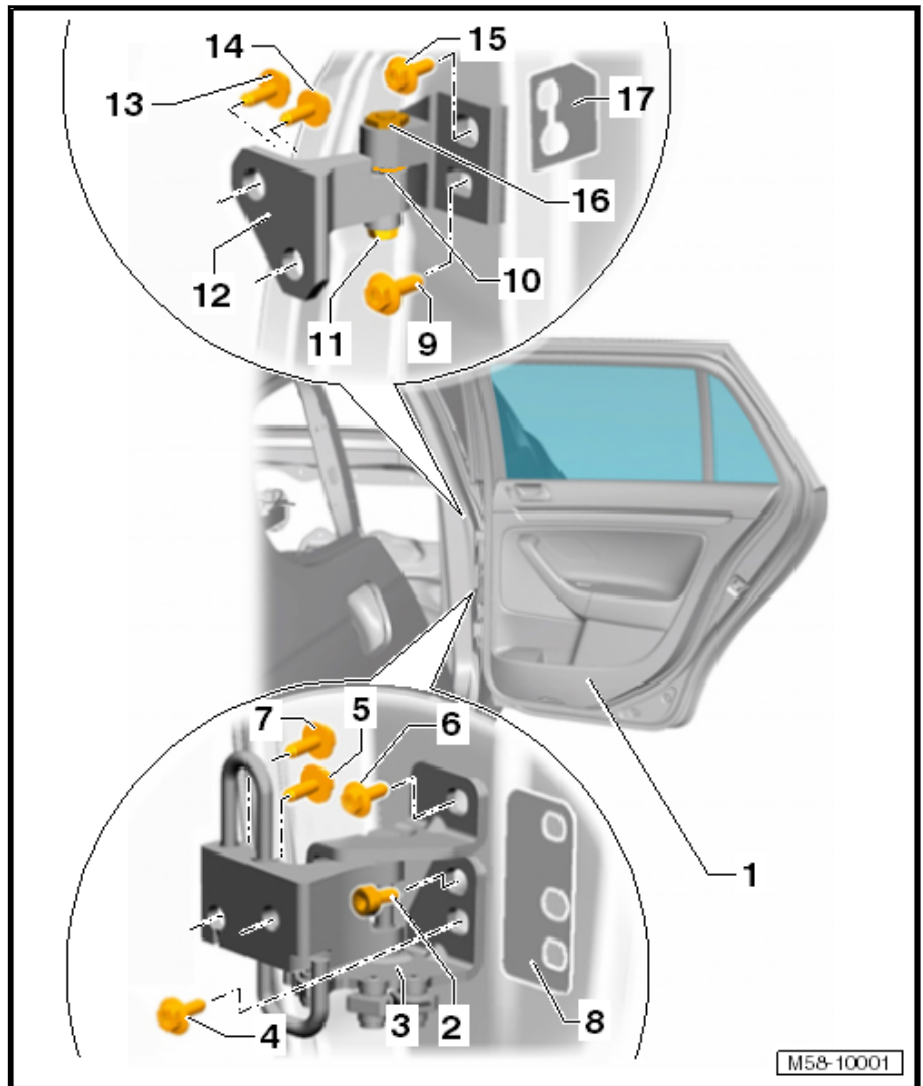
- ☐ Tightening specification: 40 Nm
- ☐ Always replace bolts after loosening them

## 5 - Bolt

- ☐ Tightening specification: 20 Nm + 45°
- ☐ Always replace bolts after loosening them

## 6 - Bolt

- ☐ Tightening specification: 40 Nm
- ☐ Always replace bolts after loosening them



## 7 - Bolt

- ☐ Tightening specification: 20 Nm + 45°
- ☐ Always replace bolts after loosening them

## 8 - Lower Spacer Plate

## 9 - Guide Bolt

- ☐ Tightening specification: 10 Nm.

## 10 - Adjusting Ring

- ☐ Provides the eccentric pin adjustment range.

## 11 - Bolt

- ☐ For the eccentric bolts
- ☐ Tightening specifications: 28 Nm

## 12 - Door Hinge

- ☐ Lubricate if the hinge is replaced. Refer to ["1.3 New Door Hinge, Lubricating", page 128](#).

## 13 - Bolt

- ☐ Tightening specification: 20 Nm + 45°
- ☐ Always replace bolts after loosening them

## 14 - Bolt

- ☐ Tightening specification: 20 Nm + 45°





- ❑ Always replace bolts after loosening them

#### 15 - Internal Multi-Point Bolt

- ❑ Tightening specification: 40 Nm
- ❑ Always replace bolts after loosening them

#### 16 - Eccentric Bolts

- ❑ The eccentric bolts are for adjusting the gap

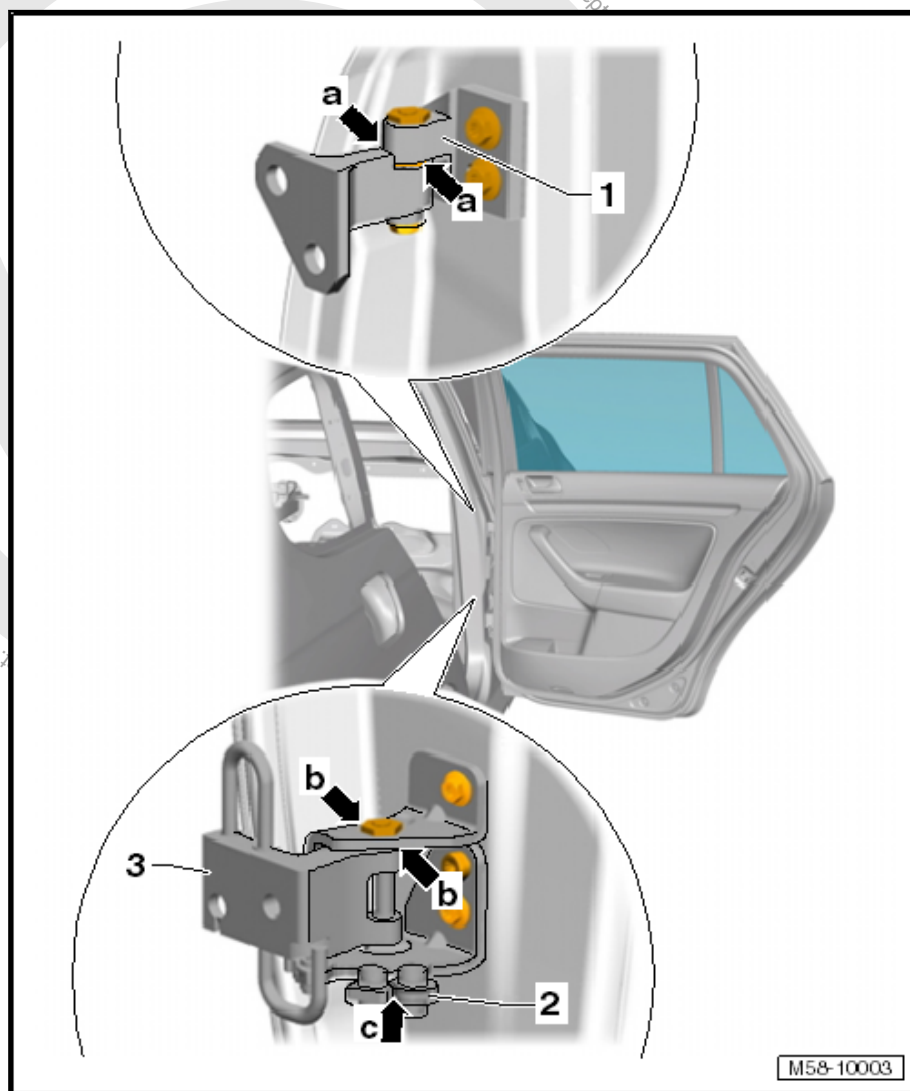
#### 17 - Upper Spacer Plate

### 1.3 New Door Hinge, Lubricating



#### Note

*Lubricate the new door hinge after the painting is completed.*



- The upper door hinge -1- is lubricated all around -a arrows- at the pins and hole with Lithium Grease - G 000 150- .
- Lubricate the lower hinge -3- all around -b arrows- at the pins and hole with Lithium Grease - G 000 150- .



- Lubricate the door check torsion spring -2- on the lower hinge with Lithium Grease - G 000 150- -c arrows-.

## 1.4 Door, Removing and Installing

⇒ "1.4.1 Removing", page 129

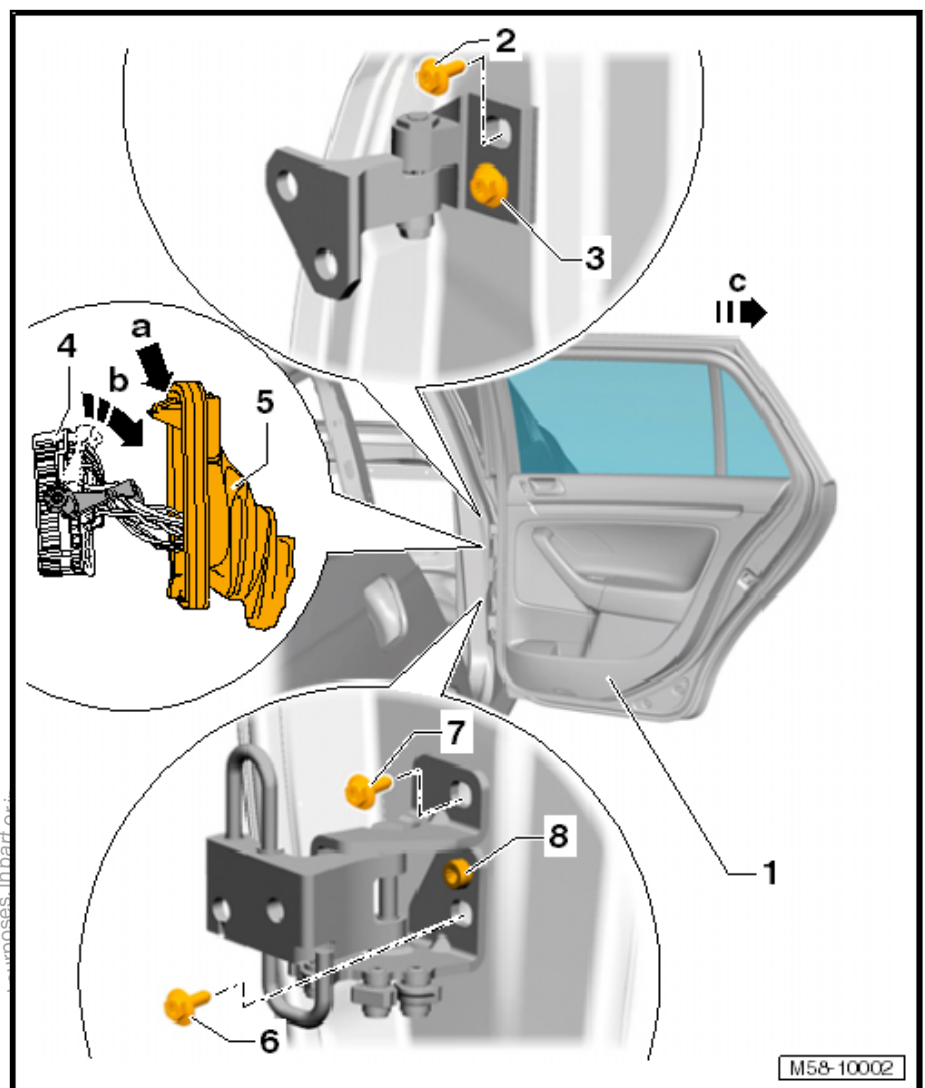
⇒ "1.4.2 Installing", page 130



### Note

*The following describes removing and installing the right door.  
Removing and installing the left door is identical.*

### 1.4.1 Removing



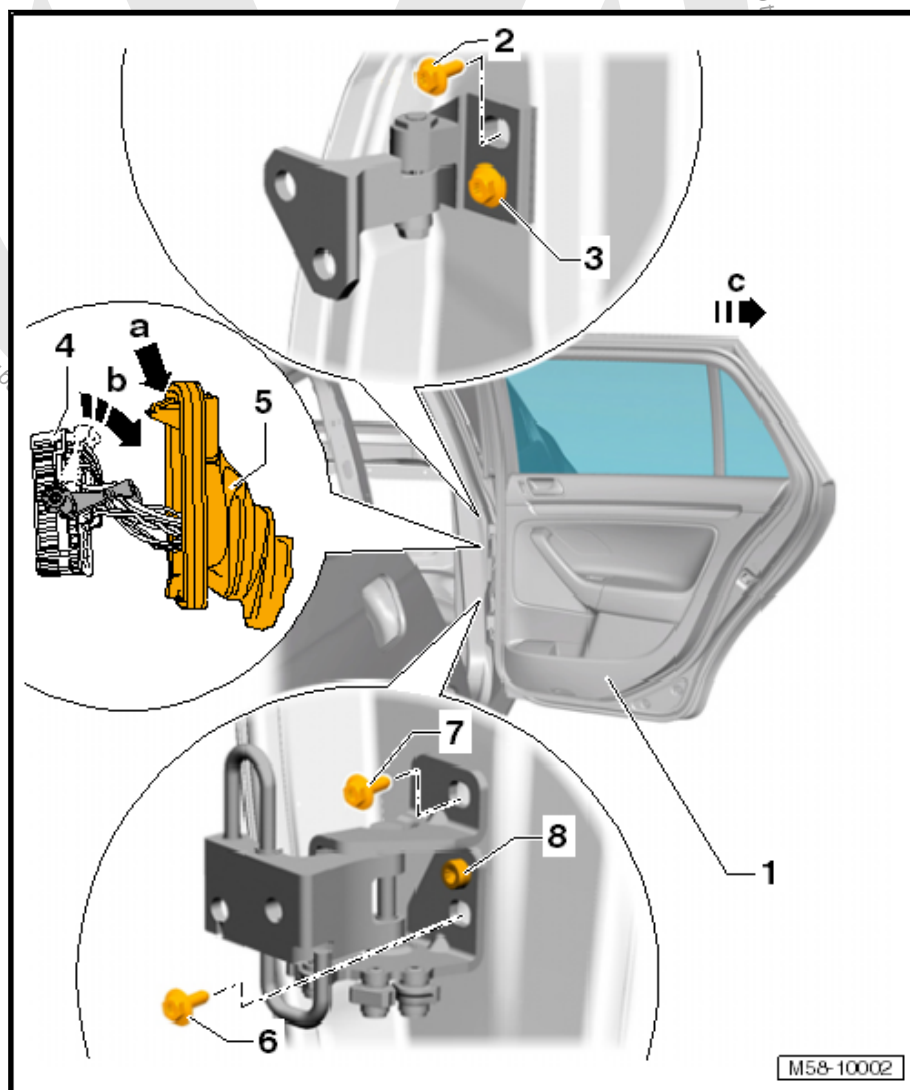
- Press on the catch -arrow a- and remove the boot -5- from the B-pillar.
- Move the locking lever downward -arrow b- and disconnect the connector from the connector station -4-.





- Remove the bolts -2, 6 and 8- from the hinge using the Wrench - Door Adjusting - 3320- and the Wrench - Door Adjusting - Box Wrench - 3320/3- .
- The bolts -3 and 8- are actually guide screws and remain on the hinge.
- Pull the door -1- off the guide screws -3 and 8- in -direction of arrow c-

## 1.4.2 Installing



Install in reverse order of removal.

- Always replace the bolts -2, 6 and 7-.
- Bolts -2, 6 and 7- tightening specification: 40 Nm.
- Make sure the front door gap dimension is correct. Refer to  
⇒ Body Repair; Rep. Gr. 00 ; Technical Data; Body Gap  
Dimensions; Body, Center .





## 1.5 Door Adjustment

⇒ ["1.5.1 Tools", page 131](#)

⇒ ["1.5.2 Door, Adjusting Gap Dimension and Flush Dimension", page 131](#)

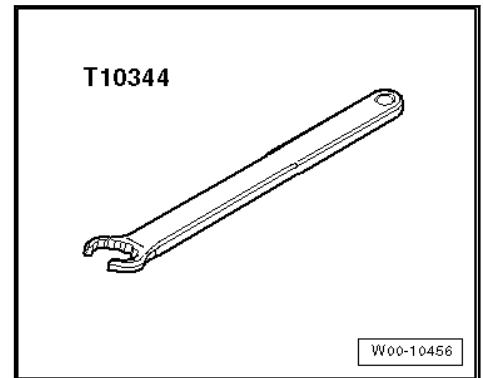
⇒ ["1.5.3 Door, Adjusting Gap Dimensions", page 133](#)

⇒ ["1.5.4 Striker, Adjusting", page 134](#)

### 1.5.1 Tools

Special tools and workshop equipment required

- ◆ Open Ring Wrench - 15mm - T10344-



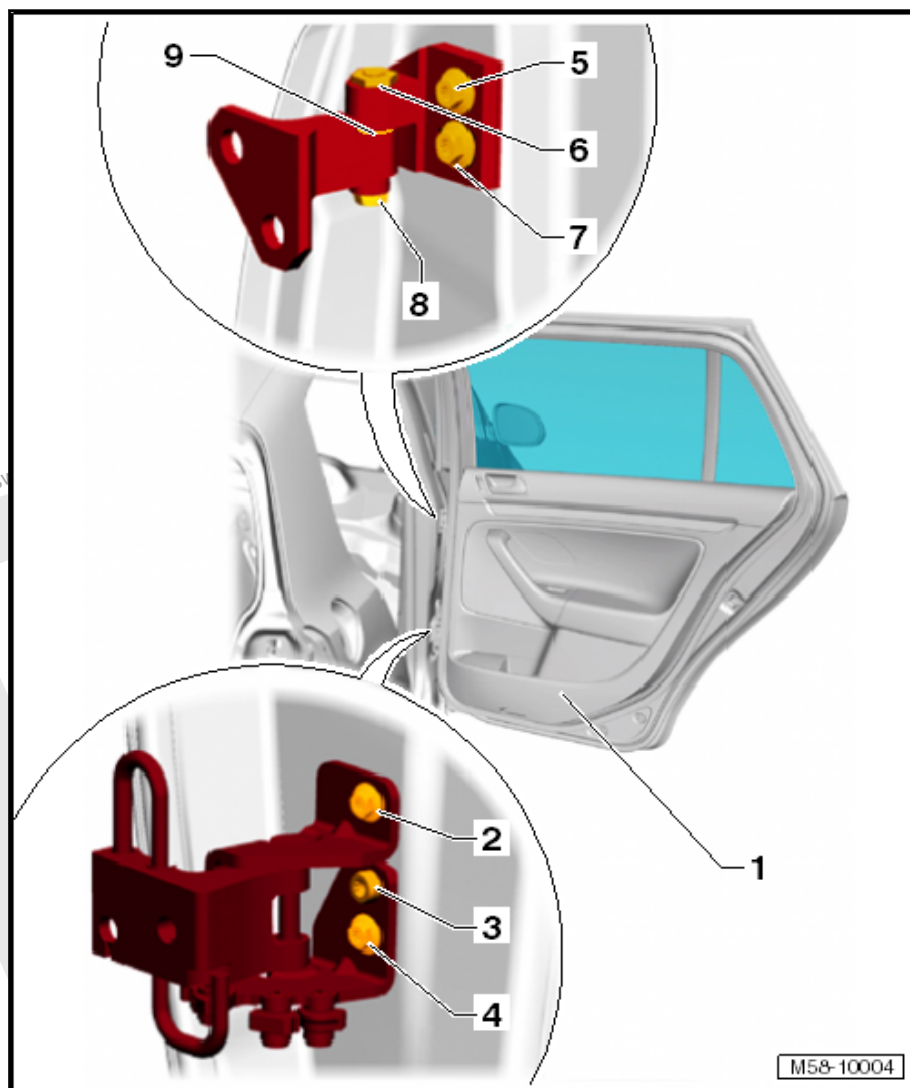
### 1.5.2 Door, Adjusting Gap Dimension and Flush Dimension



#### Note

- ◆ *The door is properly adjusted when there is an overall even gap dimension when closed, it is not too far inward or outward and contours align.*
- ◆ *Vehicle must stand on its wheels while they are on the ground in order to be able to perform the adjustment.*





### Adjusting the gap dimensions

- Observe the gap dimensions of the front door. Refer to ⇒ Body Repair, Rep. Gr. 00 ; Technical Data, Body Gap Dimensions .

Adjustments are made using the eccentric bolts -6-.

Other measures, such as aligning the door upward, do not work. Pressure later will cause the door to sag again.

- Loosen the bolt -8- for the eccentric bolt -6-.
- Adjust the eccentric pin -6- within the adjustment range -10- using the Open Ring Wrench - 15mm - T10344- .
- Tighten the bolt -8-. Tightening specification: 28 Nm
- Adjust the striker. Refer to ⇒ [“1.5.4 Striker, Adjusting”, page 134](#) .
- If the adjustment range is insufficient, then proceed as described in Refer to ⇒ [“1.5.3 Door, Adjusting Gap Dimensions”, page 133](#) .

### Adjusting the flush dimension

The flush dimension is adjusted using the bolts -2, 3, 4, 5 and 7- on the door hinge.



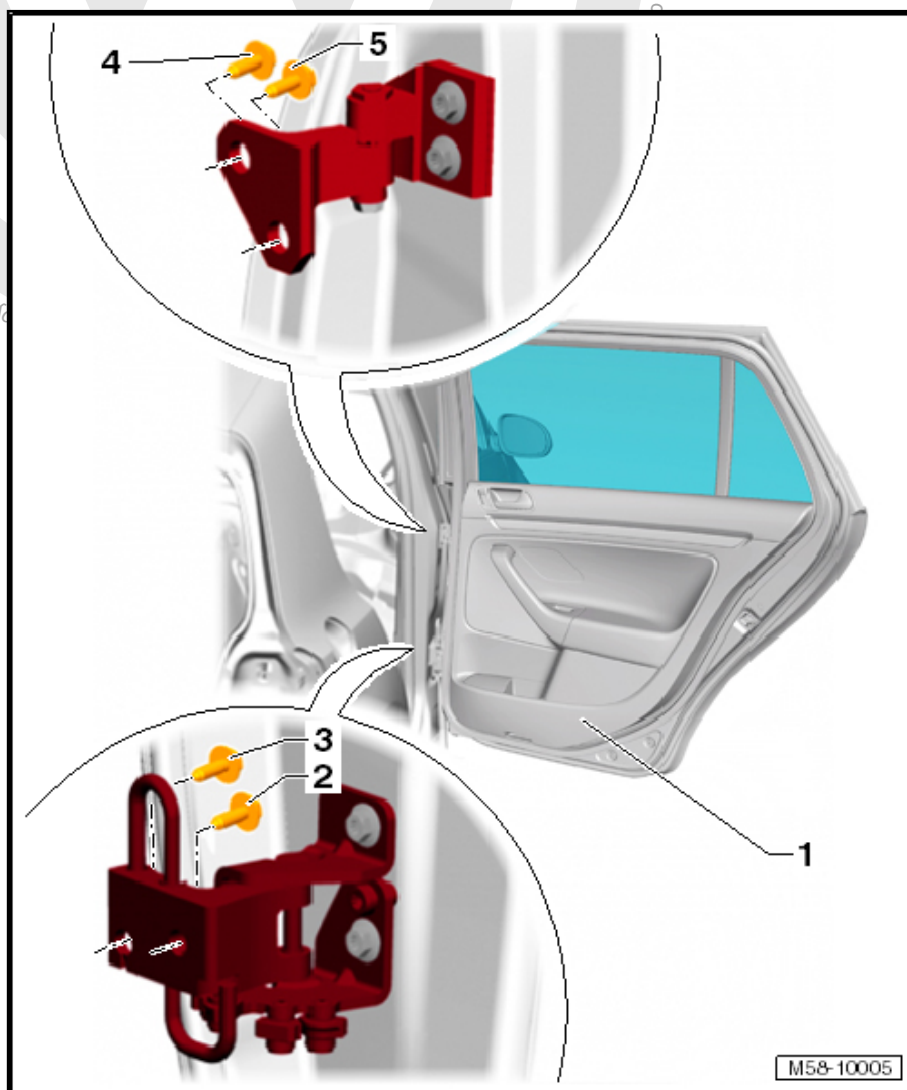
The Wrench - Door Adjusting - 3320- and Wrench - Door Adjusting - Box Wrench - 3320/3- are used for this.

- In order to adjust the upper area of the door, loosen bolts -5 and 7-.
- Bolt tightening specifications -7-: 10 Nm.
- Bolt tightening specification -5-: 40 Nm
- In order to adjust the lower area of the door, loosen bolts -2, 3 and 4-.
- Bolt tightening specifications -3-: 10 Nm.
- Bolt tightening specification -2 and 4-: 40 Nm

Always replace the bolts -2, 4, and 5- after loosening.

- Adjust the striker. Refer to ➤ [“1.5.4 Striker, Adjusting”, page 134](#).

### 1.5.3 Door, Adjusting Gap Dimensions



If the adjustment using the eccentric bolt is insufficient, then adjust the gap dimensions on the door hinge once again using the screws -2, 3, 4, and 5-.





The Wrench - Door Adjusting - 3320- and Wrench - Door Adjusting - Box Wrench - 3320/3- are used for this.

- Tightening specification for bolts -2, 3, 4, and 5-: 20 Nm + 45°.

Always replace the screws -2, 3, 4, and 5-.

### 1.5.4 Striker, Adjusting



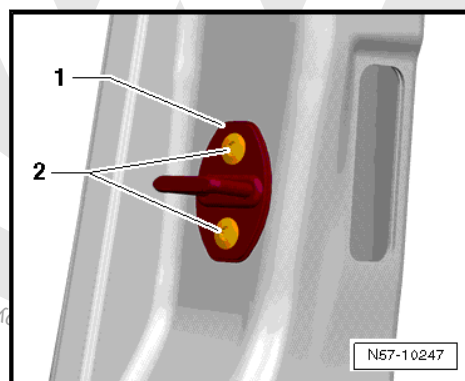
#### Note

- ◆ *The following describes adjusting the right front door. Adjusting the left front door is identical.*
- ◆ *When closing, the front door must latch completely without additional force and it must not have any play.*
- ◆ *The front door must not be pushed up or down when adjusting the striker.*

The catch can be used to adjust:

- If the front door does not align with the rear door.
- Loosen the bolts -2- and the striker -1-.
- Adjust the door with the striker -1- so the door aligns with the side panel when closed. This prevents wind noise.
- Tighten the bolts -2- for the catch -1-.

Tightening specifications for bolts -2-: 20 Nm.



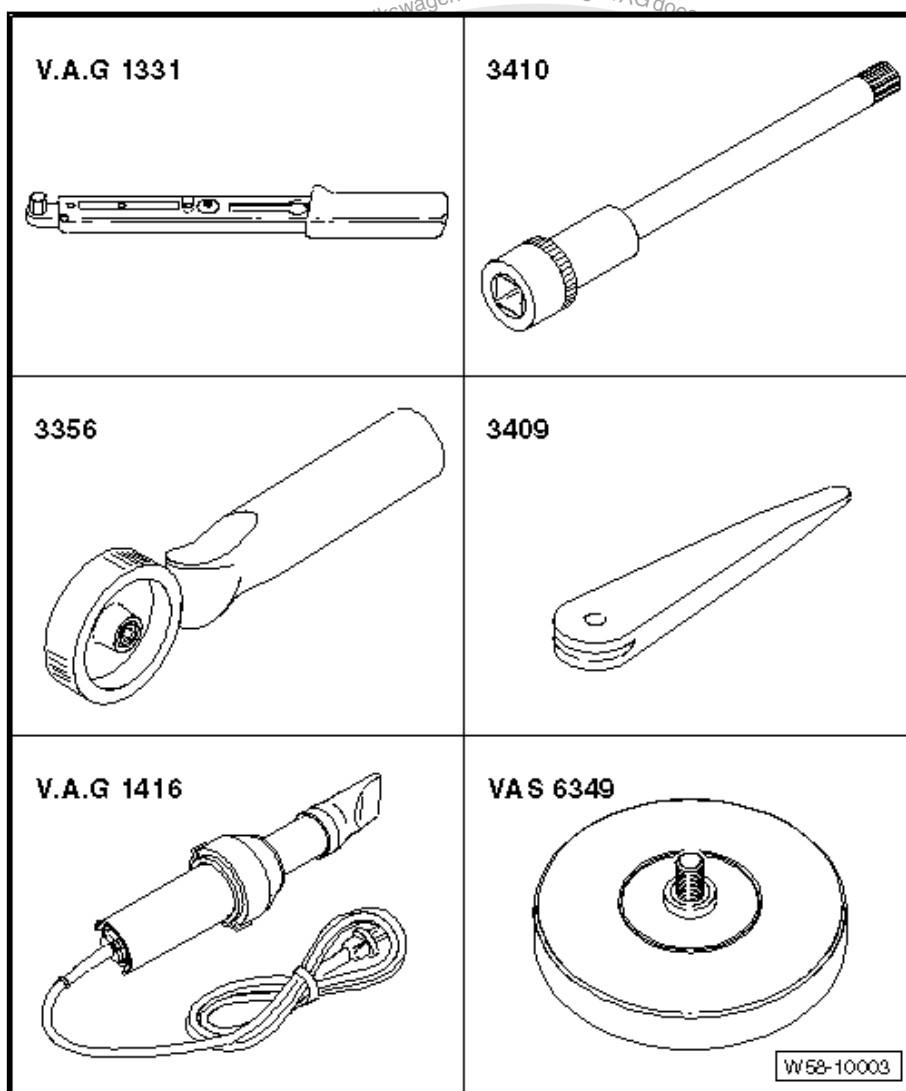




## 2 Door Components

- ⇒ ["2.1 Tools", page 135](#)
- ⇒ ["2.2 Overview - Rear Door", page 136](#)
- ⇒ ["2.3 Subframe, Removing and Installing", page 138](#)
- ⇒ ["2.4 Overview - Door Handle and Door Lock", page 141](#)
- ⇒ ["2.5 Housing, Removing and Installing", page 143](#)
- ⇒ ["2.6 Door Handle, Removing and Installing", page 143](#)
- ⇒ ["2.7 Door Lock, Removing and Installing", page 145](#)
- ⇒ ["2.8 Mounting Bracket, Removing and Installing", page 146](#)
- ⇒ ["2.9 Outer Window Shaft Seal, Removing and Installing", page 147](#)
- ⇒ ["2.10 Inner Door Seal, Removing and Installing", page 147](#)
- ⇒ ["2.11 Outer Door Seal, Removing and Installing", page 150](#)

### 2.1 Tools







Torque Wrench, 6-50Nm - VAG 1331A-

Cylinder Head Bolt Socket - 3410-

Roller - 3356-

Trim Removal Wedge - 3409-

Wiring Harness Repair Set - Hot Air Blower - VAS 1978/14A-

Adhesive Strip Remover - VAS 6349-

## 2.2 Overview - Rear Door







## 1 - Door Window

- ☐ Removing and Installing. Refer to ⇒ [“5.3 Door Window, Removing and Installing”, page 264](#).

## 2 - Fixed Door Window

- ☐ Removing and Installing. Refer to ⇒ [“5.7 Fixed Door Window, Removing and Installing”, page 270](#).

## 3 - Outer Window Shaft Seal

- ☐ Removing and Installing. Refer to ⇒ [“5.4 Outer Window Shaft Seal, Removing and Installing”, page 265](#).

## 4 - Clips

- ☐ Quantity: 4
- ☐ To secure the outer window shaft seal

## 5 - Housing

- ☐ Removing and Installing. Refer to ⇒ [“2.5 Housing, Removing and Installing”, page 143](#).

## 6 - Door Handle

- ☐ Removing and Installing. Refer to ⇒ [“2.6 Door Handle, Removing and Installing”, page 143](#).

## 7 - Door

- ☐ Removing and Installing. Refer to ⇒ [“1.4 Door, Removing and Installing”, page 129](#).
- ☐ Adjusting. Refer to ⇒ [“1.5 Door Adjustment”, page 131](#).

## 8 - Door Lock

- ☐ Removing and Installing. Refer to ⇒ [“2.7 Door Lock, Removing and Installing”, page 145](#).

## 9 - Subframe

- ☐ With window regulator
- ☐ Removing and Installing. Refer to ⇒ [“2.3 Subframe, Removing and Installing”, page 138](#).

## 10 - Lower Door Hinge

- ☐ Overview. Refer to ⇒ [“1.2 Overview - Door Hinges”, page 126](#).

## 11 - Upper Door Hinge

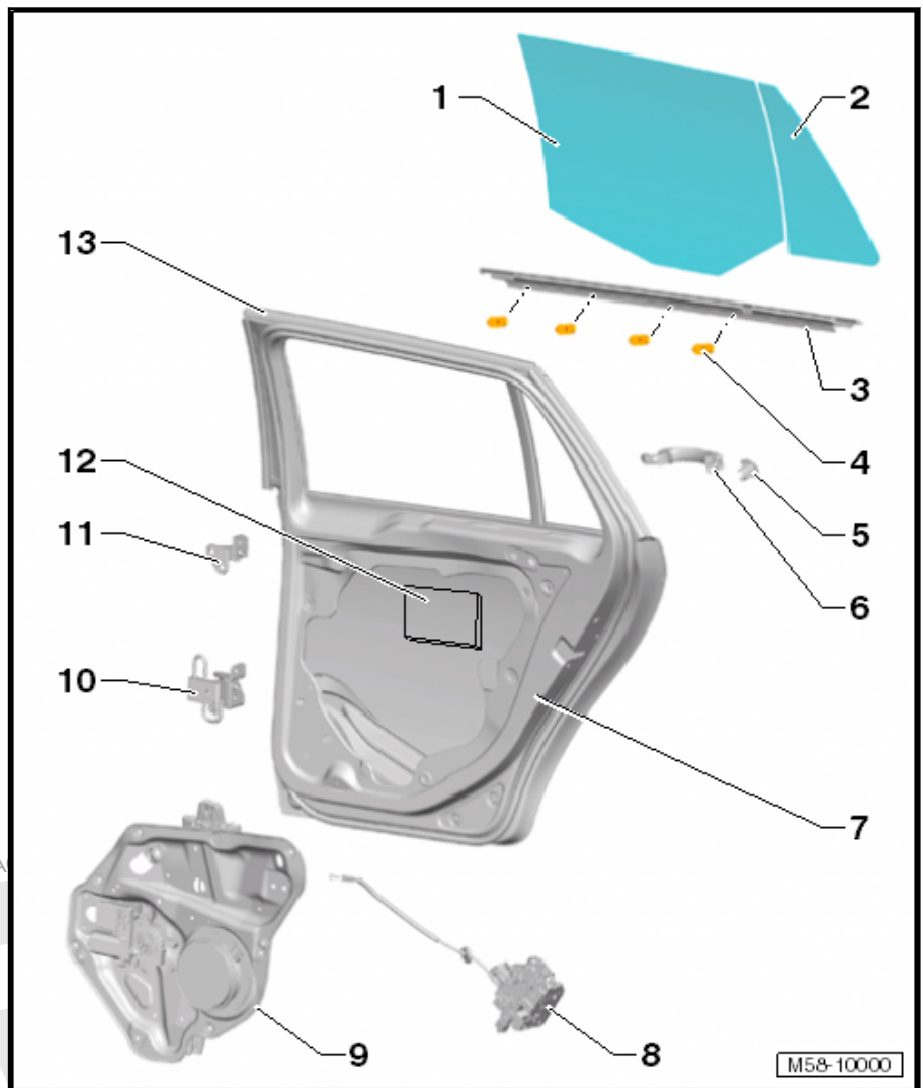
- ☐ Overview. Refer to ⇒ [“1.2 Overview - Door Hinges”, page 126](#).

## 12 - Insulation

- ☐ Self-adhesive
- ☐ To adhere, insulation must be preheated and then pressed on firmly

## 13 - Window Guide

- ☐ Removing and Installing. Refer to ⇒ [“5.6 Window Guide, Removing and Installing”, page 267](#).







## 2.3 Subframe, Removing and Installing

⇒ [“2.3.1 Removing”, page 138](#)

⇒ [“2.3.2 Installing”, page 140](#)



### Note

*Removing and installing is described only for the right subframe. Removing and installing the left subframe is derived accordingly from this.*

The window regulator, door lock and speaker are secured to the subframe.

The door lock can only be removed with the subframe.

If it is not possible to drive down the door window by the electrical window regulator, first the exact cause of malfunction must be determined.

The convenience system DTC memory must be checked with a  
⇒ Vehicle diagnostic tester.

If electrical malfunction is present, repair this malfunction first.

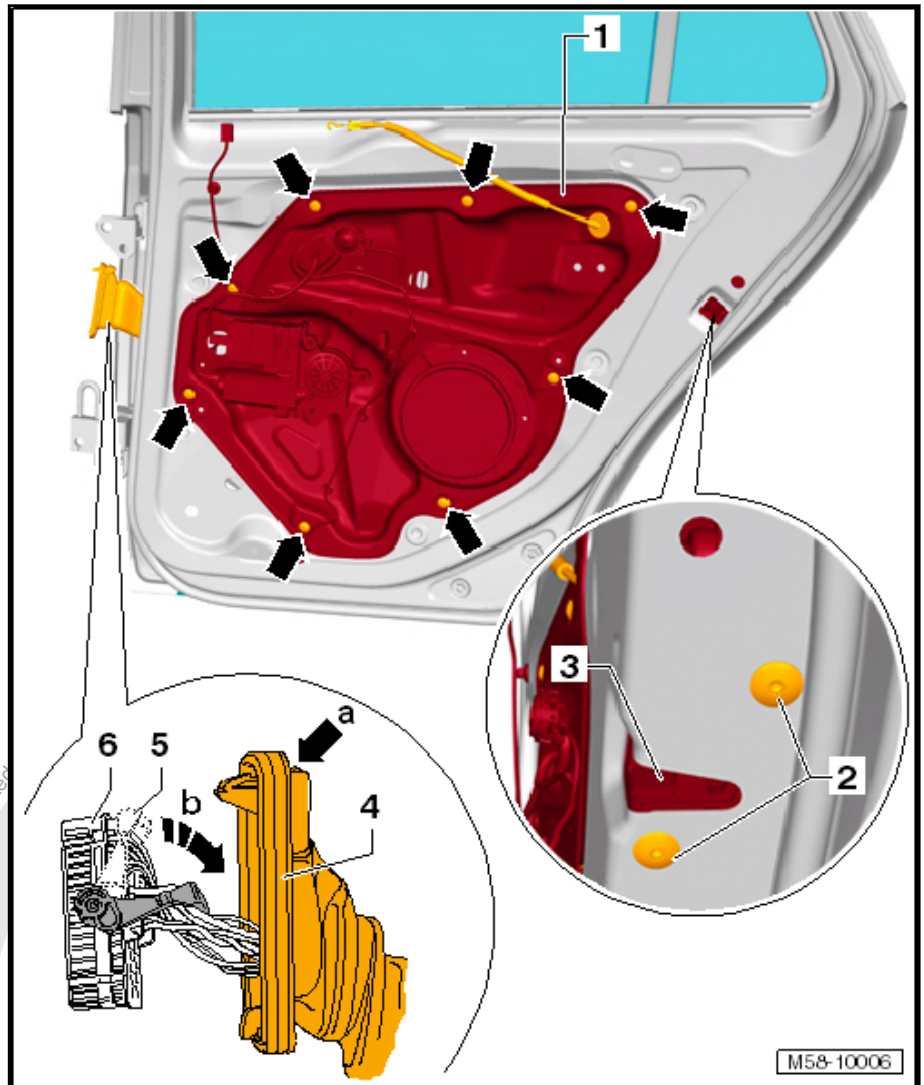
If there is an electrical malfunction due to window regulator motor, it can be unscrewed from subframe and door window can be slid by hand into the necessary work position.

### 2.3.1 Removing

Remove the door handle. Refer to ⇒ [“2.6 Door Handle, Removing and Installing”, page 143](#).

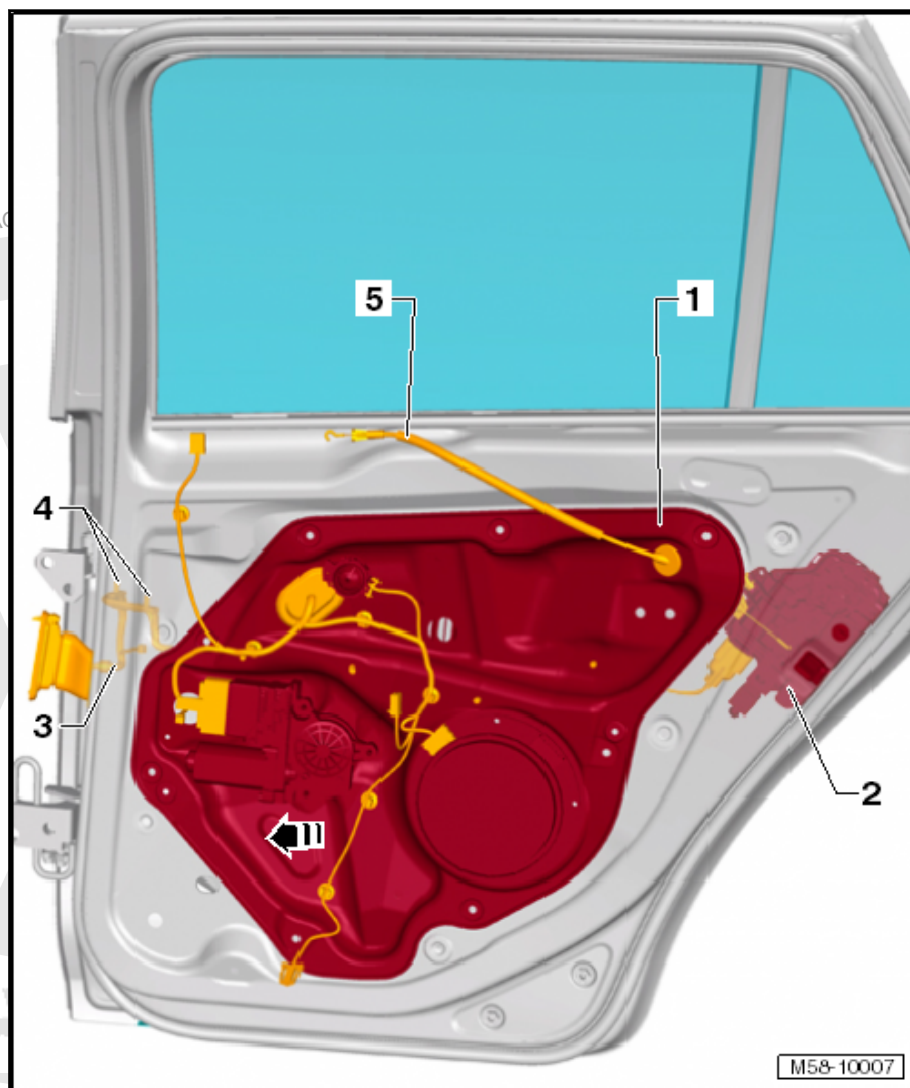
Remove the door window. Refer to ⇒ [“5.3 Door Window, Removing and Installing”, page 264](#).





- Release the boot -4- by pressing on the catch -arrow a- and remove boot from the B-pillar.
- Swing locking lever -5- downward -arrow b- and disconnect electrical harness connector -6- from connector station.
- Remove the bolts -2- from the door lock -3-.
- Remove the bolts -arrow- from the subframe -1-.

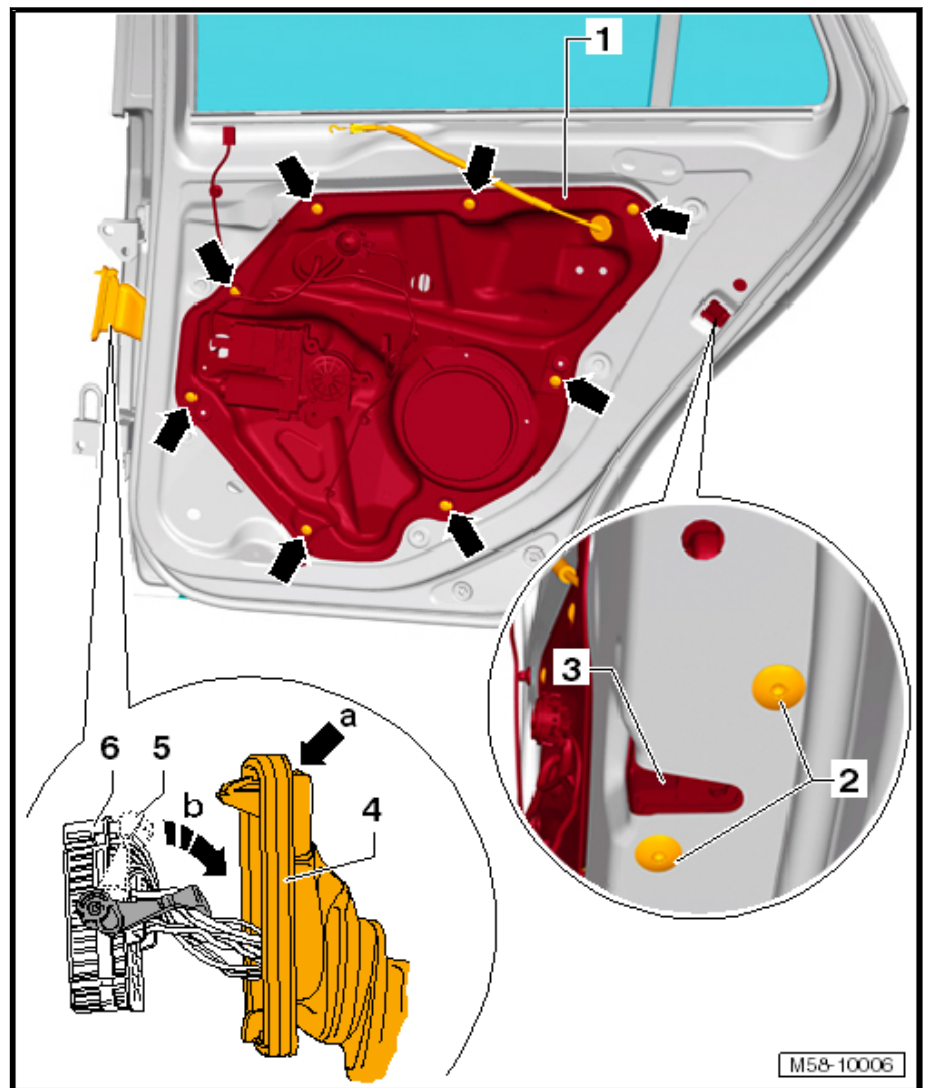




- Guide the wire -3- into the door and loosen the clips -4-.
- Remove the subframe -1- with the door lock -2- and the cable -5- from the door in the direction of the -arrow-.

### 2.3.2 Installing





Install in reverse order of removal.

- Secure the door window. Refer to ➤ [“5.3.2 Door Window, Installing”, page 265](#) .
- Tightening specifications: subframe bolt -arrow- 8 Nm
- Tightening specifications: door lock bolts -2-: 18 Nm

## 2.4 Overview Door Handle and Door Lock



**Note**

*The illustration shows the right side. The left side is identical.*





## 1 - Door Lock

- ❑ Removing and Installing. Refer to ⇒ [“2.7 Door Lock, Removing and Installing”, page 145](#).

## 2 - Cable

- ❑ Allows the interior door mechanism to unlock the lock

## 3 - Cover

- ❑ Is not part of the door lock delivery package
- ❑ Secured with retaining tabs to door lock

## 4 - Mounting Bracket

- ❑ Removing and Installing. Refer to ⇒ [“2.8 Mounting Bracket, Removing and Installing”, page 146](#).

## 5 - Bolt

- ❑ Tightening specification: 4.5 Nm.
- ❑ Loosening this bolt loosens the mounting bracket from the door.

## 6 - Backing Plate

- ❑ Component of door handle

## 7 - Door Handle

- ❑ Removing and Installing. Refer to ⇒ [“2.6 Door Handle, Removing and Installing”, page 143](#).

## 8 - Cap

- ❑ For the housing
- ❑ Secured with retaining tabs to housing

## 9 - Housing

- ❑ Removing and Installing. Refer to ⇒ [“2.5 Housing, Removing and Installing”, page 143](#).

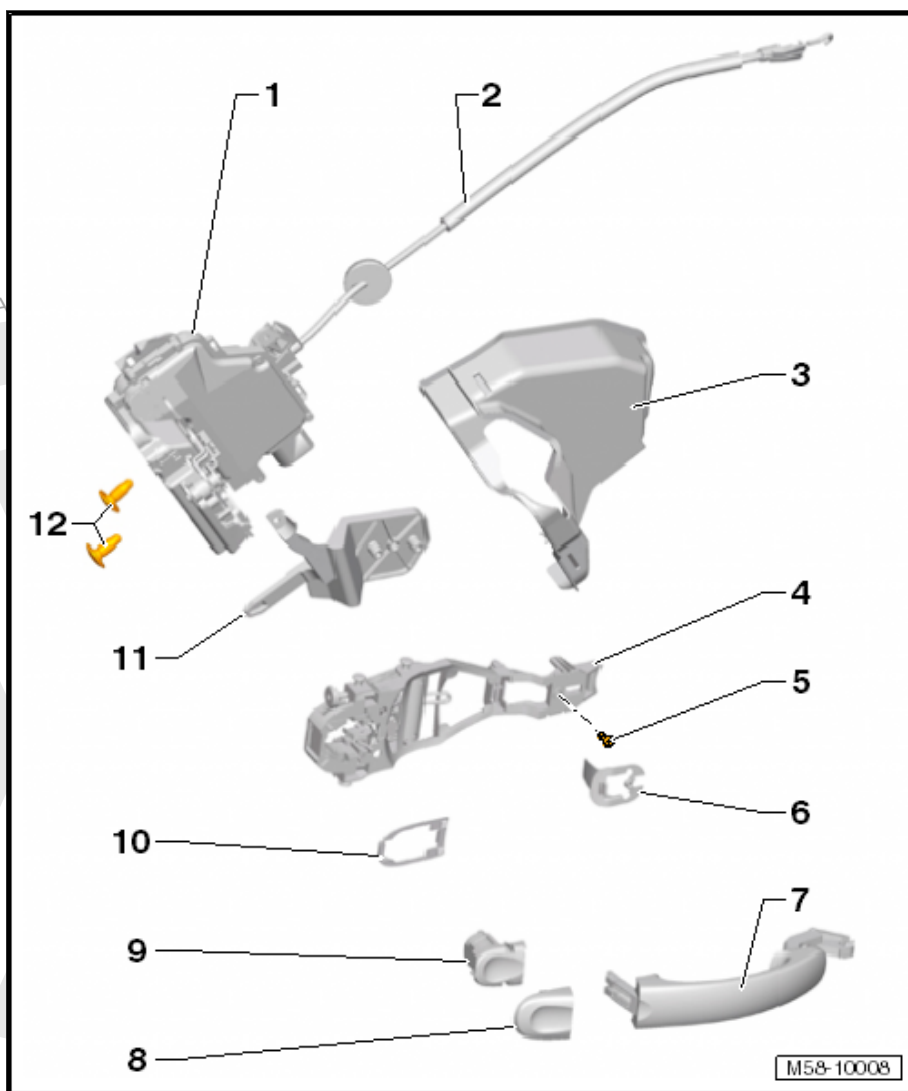
## 10 - Backing Plate

## 11 - Door Lock Retaining Bracket

- ❑ Is not part of the door lock delivery package
- ❑ positioned and riveted on door lock

## 12 - Bolt

- ❑ Tightening specification: 18 Nm.
- ❑ Quantity: 2





## 2.5 Housing, Removing and Installing

⇒ ["2.5.1 Removing", page 143](#)

⇒ ["2.5.2 Installing", page 143](#)

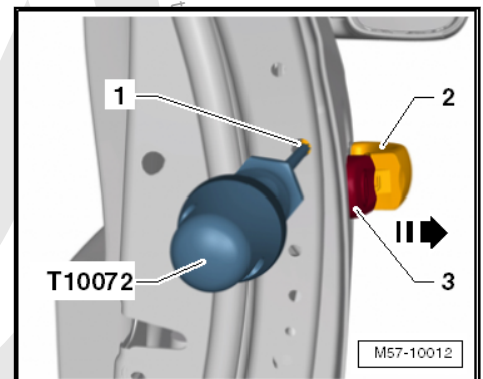


### Note

*The removal and installation instructions describe the right housing. The procedure is similar for the left housing.*

### 2.5.1 Removing

- Pry out cover cap in front of bolt -1-.
- Pull the door handle -2- in -direction of the arrow- and remove the bolt -1- until it stops using the Wrench - Driver - T10072- .
- Pull out the housing -3-.



### 2.5.2 Installing

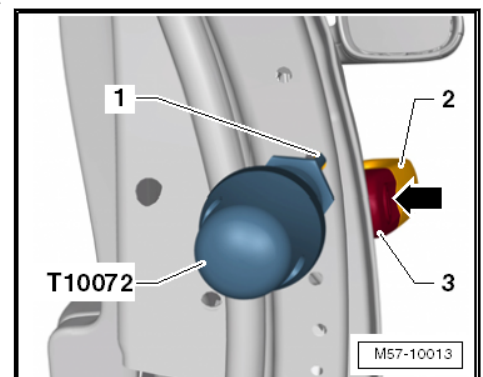
- Insert the housing -3- in the door at a right angle.
- Door handle -2- must make contact only lightly at door plate.
- Now tighten the bolt -1- all the way using the Wrench - Driver - T10072- .

The door handle -2- engages again into the housing -3- with a very audible click.



### Note

*During installation, housing must be pressed onto door plate. The door handle rests only lightly against the door panel.*



Perform the rest of the installation in the reverse order of removal.

Then a function test must be performed when the door is open, since the door cannot be opened if the release cable is not correctly adjusted or clipped in.

## 2.6 Door Handle, Removing and Installing

⇒ ["2.6.1 Removing", page 144](#)

⇒ ["2.6.2 Installing", page 144](#)



### Note

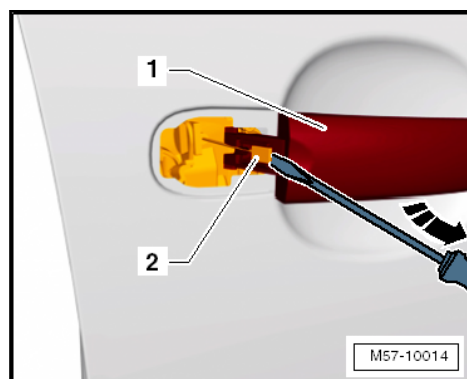
*The following describes the removal and installation of the right door handle. Removing and installing the left door handle is identical.*



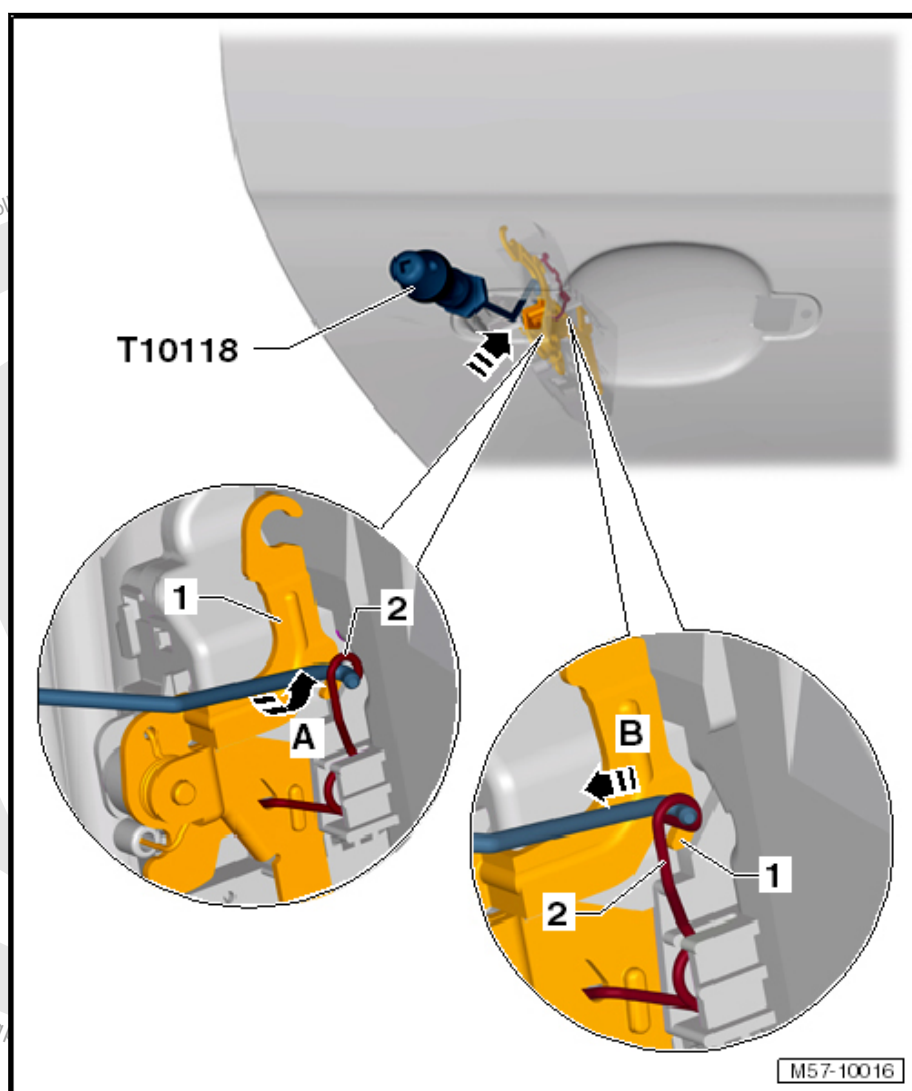


## 2.6.1 Removing

- Remove the housing. Refer to ➤ [“2.5 Housing, Removing and Installing”, page 143](#).
- Pry the clip -2- out of the door handle -1-.
- Swing the door handle -1- out of door -arrow-.



## 2.6.2 Installing



- Guide the Elbow Assembly Tool - T10118- in the door through the opening in the outer door panel.
- Illuminate the door inner panel using a flashlight for better view.





- Engage the Elbow Assembly Tool - T10118- in the spring -2- -arrow A-.
- Pull the Elbow Assembly Tool - T10118- -arrow B- to engage the spring -2- in the door lock release lever -1-.

The release lever is now locked into position.

**Note**

*Engaging the spring in the release lever secures the lock. This prevents the cable from being clipped in at the door handle incorrectly.*

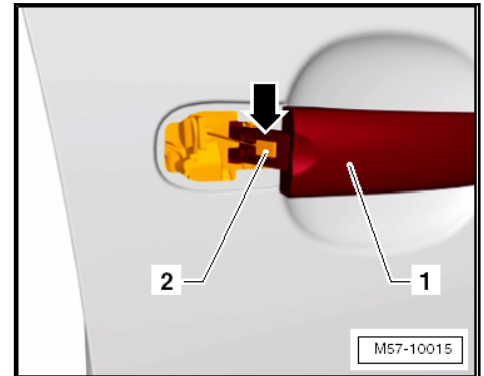
- Pivot the door handle -1- into the door.
- Pull the clip -2- into the plate cutout and lock the clip in the door handle -1- -arrow-.

**Note**

- ♦ *Press the door handle -1- onto the door panel during installation.*
- ♦ *Clip -2- must engage into door handle -1- with a very audibly click.*

- Install the housing. Refer to ⇒ [“1.16.2 Installing”, page 107](#).

Then a function test must be performed when the door is open, since the door cannot be opened if the release cable is not correctly adjusted or clipped in.



## 2.7 Door Lock, Removing and Installing

⇒ [“2.7.1 Removing”, page 145](#)

⇒ [“2.7.2 Installing”, page 146](#)

**Note**

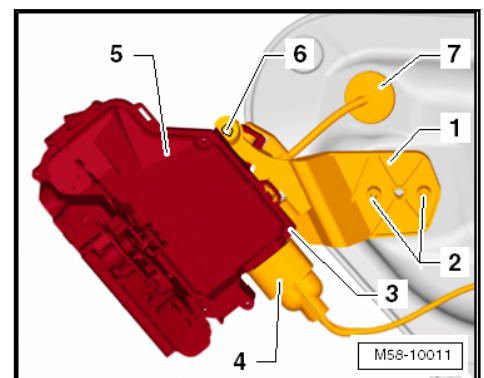
*The following describes removing and installing the right door lock. Removing and installing the left door lock is identical.*

### 2.7.1 Removing

- Remove the subframe with the door lock. Refer to ⇒ [“2.3 Subframe, Removing and Installing”, page 138](#).
- Rotate the subframe and disconnect the connector -4- from the door lock -5-.
- Drive out the clip -2- using a drift.
- Pry the retaining bracket -1- out of the subframe together with the door lock -5- and the cable -7- using a screwdriver.

**Note**

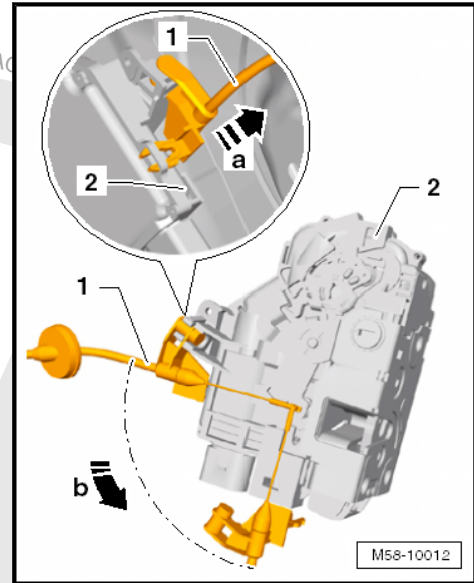
*The retaining bracket is not part of the door lock delivery package -5-. The door lock is placed on the retaining bracket -1- and secured with a pop rivet -6-.*







- Unclip the cable -1- from the door lock -2- -arrow a-.
- Swivel the cable 90° -arrow b- and remove it from the door lock -2-.



## 2.7.2 Installing

Install in reverse order of removal.

- Then a function test must be performed with the door open because the door cannot be opened if the release is not adjusted or clipped in correctly.

## 2.8 Mounting Bracket, Removing and Installing

⇒ [“2.8.1 Removing”, page 146](#)

⇒ [“2.8.2 Installing”, page 147](#)

### 2.8.1 Removing

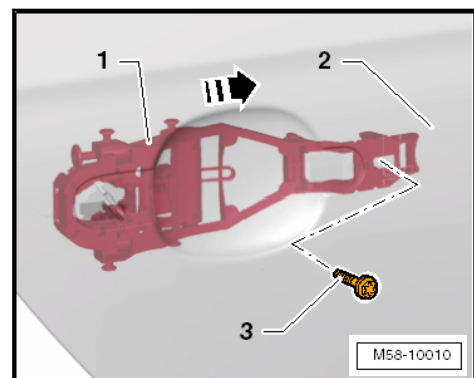


#### Note

*The following describes the removal and installation of the right mounting bracket. Removing and installing the left mounting bracket is identical.*

Remove the subframe. Refer to ⇒ [“2.3 Subframe, Removing and Installing”, page 138](#).

- Remove the bolt -3- from the mounting bracket -1-.
- Remove the mounting bracket -1- from the door -2- inward in the -direction of the arrow- out of the door opening.





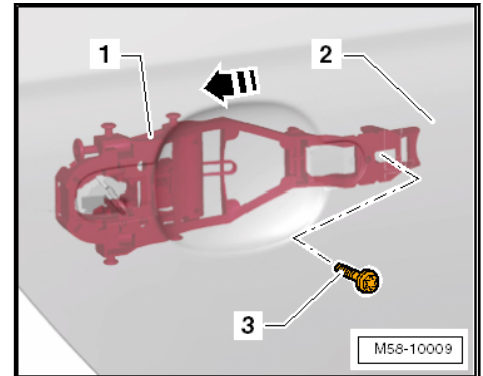


## 2.8.2 Installing

- Insert the mounting bracket -1- in the -direction of the arrow- into the door -2-.

Perform the rest of the installation in the reverse order of removal.

- Bolt -3- tightening specification: 4.5 Nm.



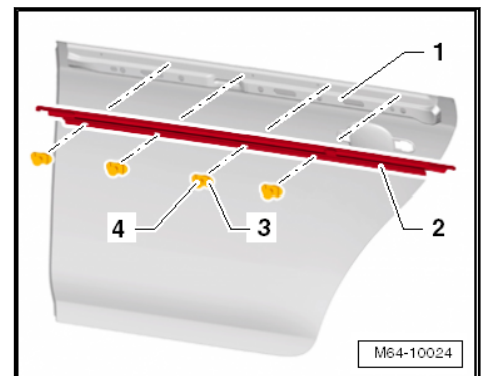
## 2.9 Outer Window Shaft Seal, Removing and Installing

⇒ [“2.9.1 Removing”, page 147](#)

⇒ [“2.9.2 Installing”, page 147](#)

### 2.9.1 Removing

- Remove the door window. Refer to ⇒ [“5.3 Door Window, Removing and Installing”, page 264](#).
- Using a small screwdriver, pry the spreader pin -4- out of the clip -3-.
- Remove the four clips -3- from the window recess seal -2-.
- Remove the window shaft seal -2- upward from the outer door panel -1-.



### 2.9.2 Installing

Install in reverse order of removal.

## 2.10 Inner Door Seal, Removing and Installing

⇒ [“2.10.1 Removing”, page 148](#)

⇒ [“2.10.2 Installing”, page 149](#)

The inner door seals are equipped at the factory with sealant, applied to the door flange and then rolled on.

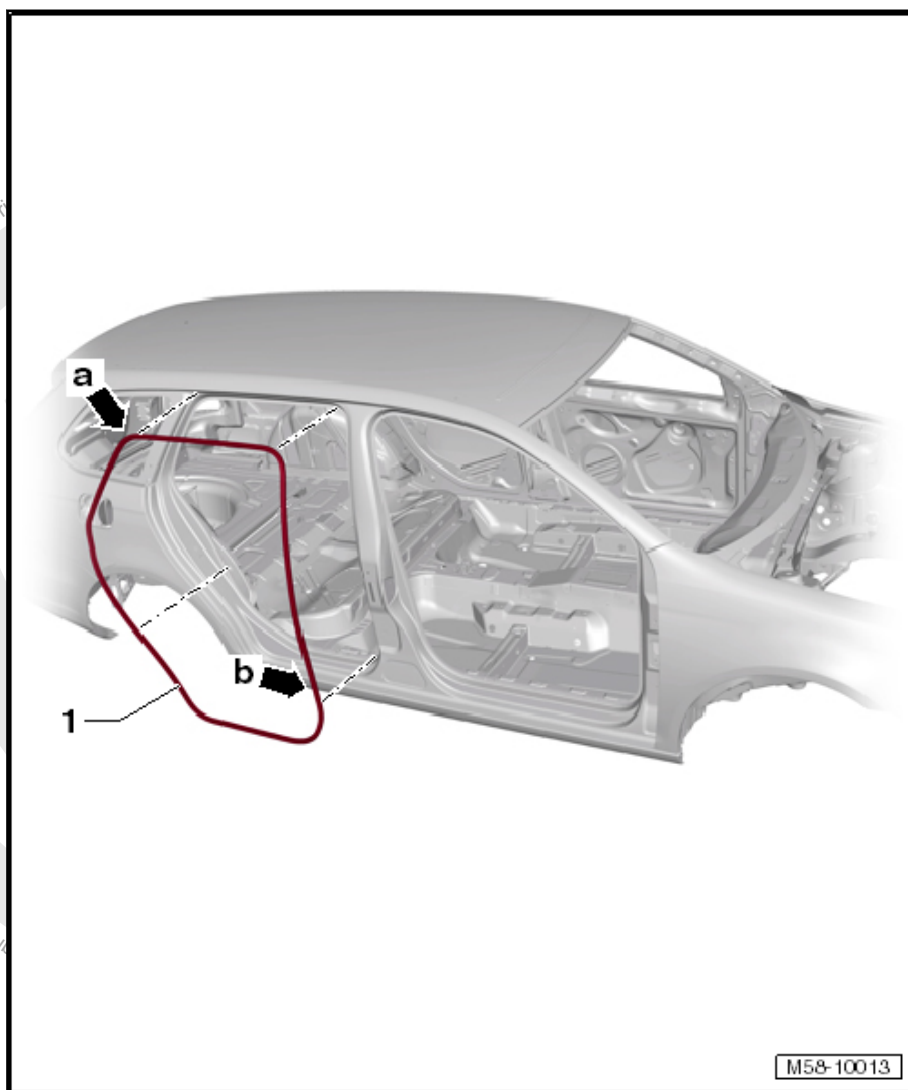




#### Note

- ◆ *When the seal is removed, the sealant spreads on the inner side of the seal and the sides bend up slightly. If the seal is being installed again, the sealing performance and the secure fit are no longer guaranteed.*
- ◆ *For this reason, every completely removed seal must be replaced with a so-called "hammer-stroke seal".*
- ◆ *With partially removed seals, press the seal sides together before installing.*
- ◆ *The following describes removing and installing the right inner door seal. Removing and installing the left inner door seal is identical.*

### 2.10.1 Removing



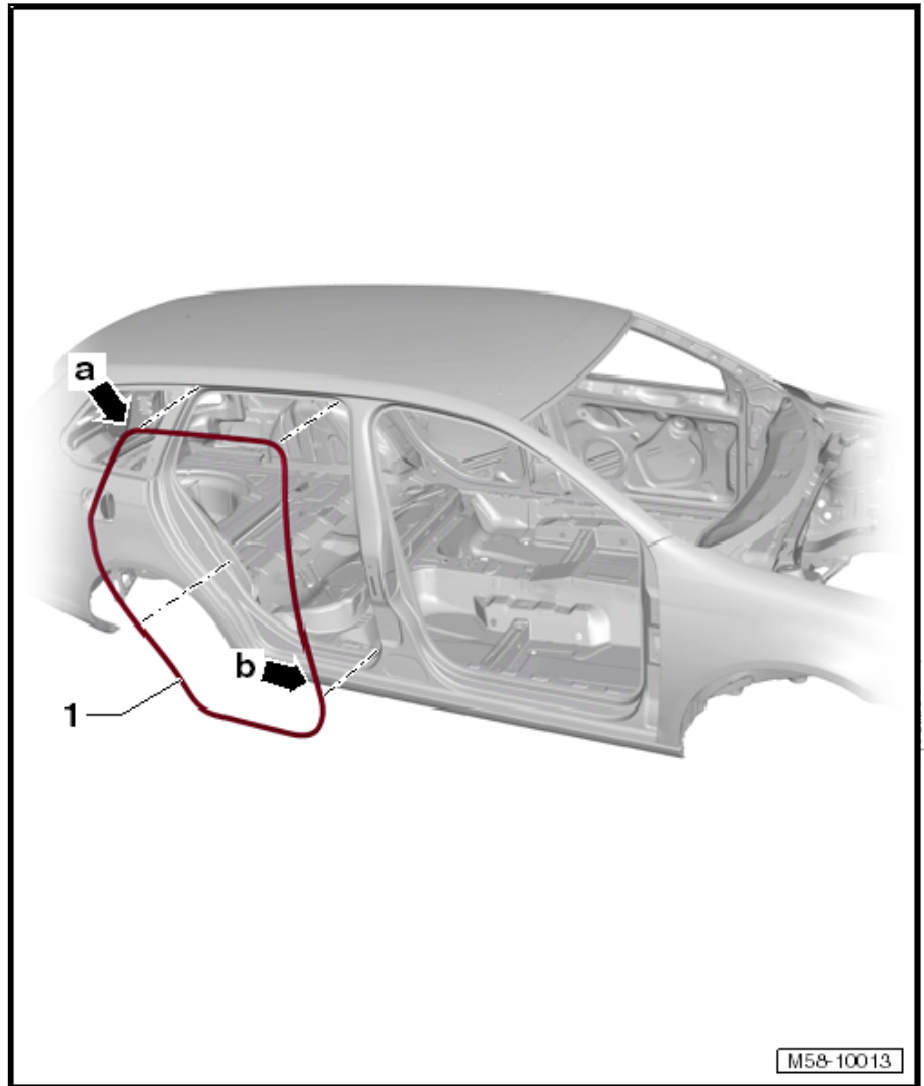
- Remove the pillar trim in order to remove the inner door seal. Refer to ⇒ Body, Interior; Rep. Gr. 70 ; Trim, Insulation; Pillar Trim; .





- Remove the sill panel strip. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Interior Equipment; Sill Panel Strips .
- Pull off inner door seal -1- from body flange.

## 2.10.2 Installing



- Align the inner door seal -1- with the vulcanized point -arrow b- at the height of the lower hinge.
- Start installation of inner door seal in upper radius -arrow a- of door cutout.





## 2.11 Outer Door Seal, Removing and Installing

⇒ "2.11.1 Removing", page 150

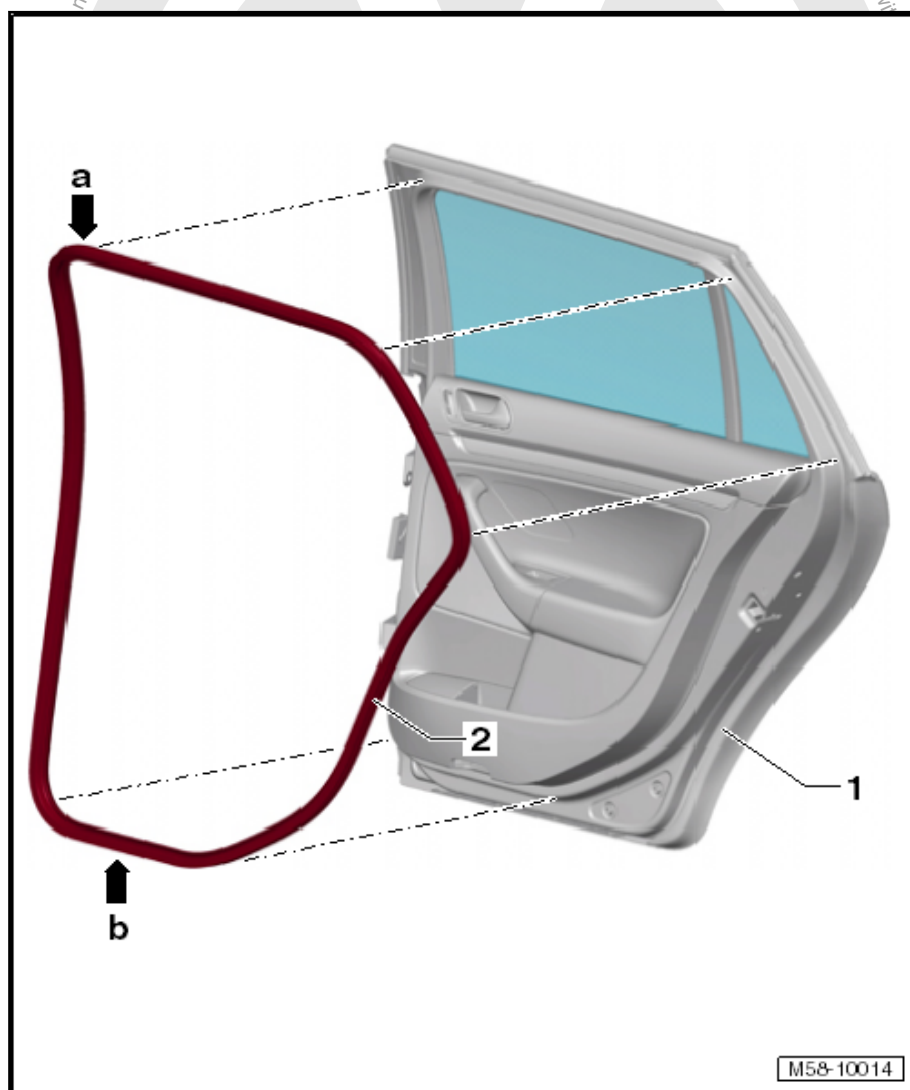
⇒ "2.11.2 Installing", page 151



### Note

- ◆ The following describes removing and installing the right outer door seal. Removing and installing the left outer door seal is identical.
- ◆ Only remove the protective film right before assembly. Processing temperature approximately 20 °C (68 °F).
- ◆ It is required that only the Adhesive Remover - D.002 000 10- must be used to remove the adhesive residue.
- ◆ Apply the outer door seal immediately after cleaning.

### 2.11.1 Removing

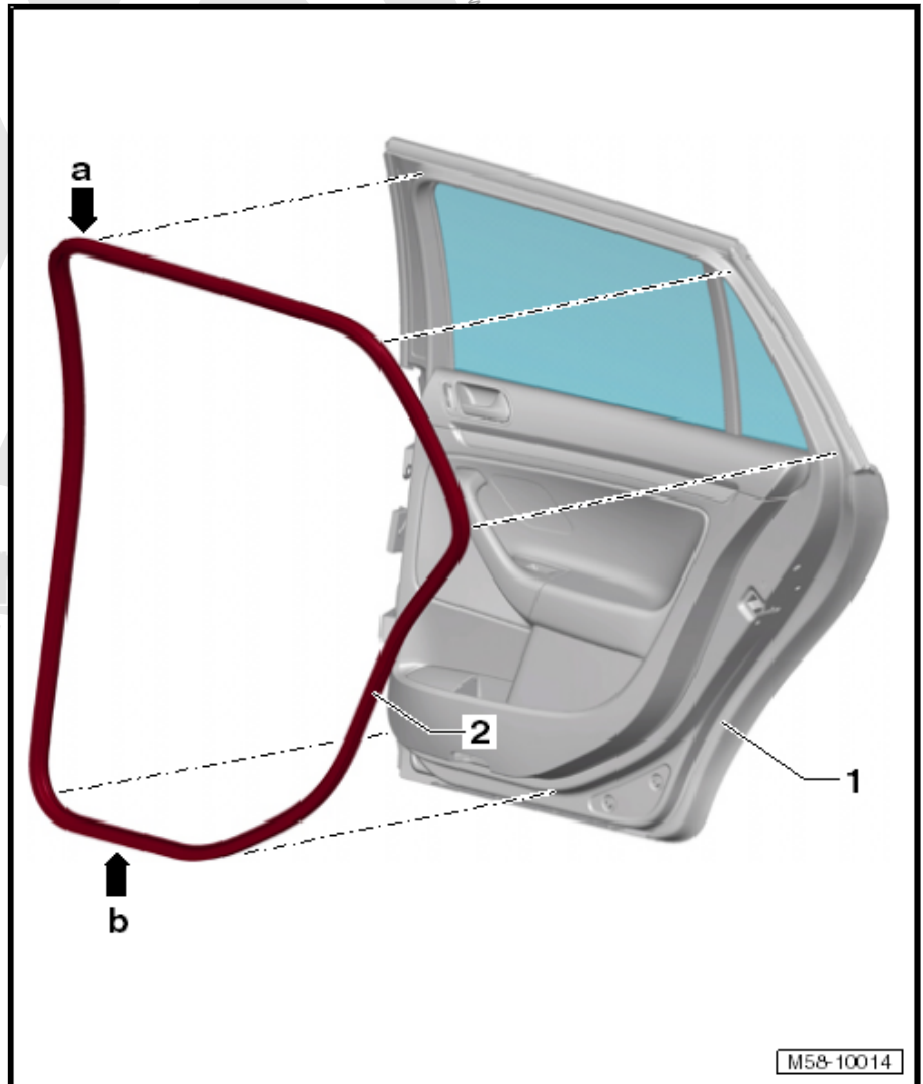


- Remove the outer door seal -2- from the door -1-.



## 2.11.2 Installing

- If there is adhesive residue, remove it with the eraser disc for the Adhesive Strip Remover - VAS 6349.
- Thoroughly clean the adhesive surface with Adhesive Remover - D 002 000 10- right before installing the outer door seal.
- The adhesive surface must not have any dust, grease or adhesive residue on it.

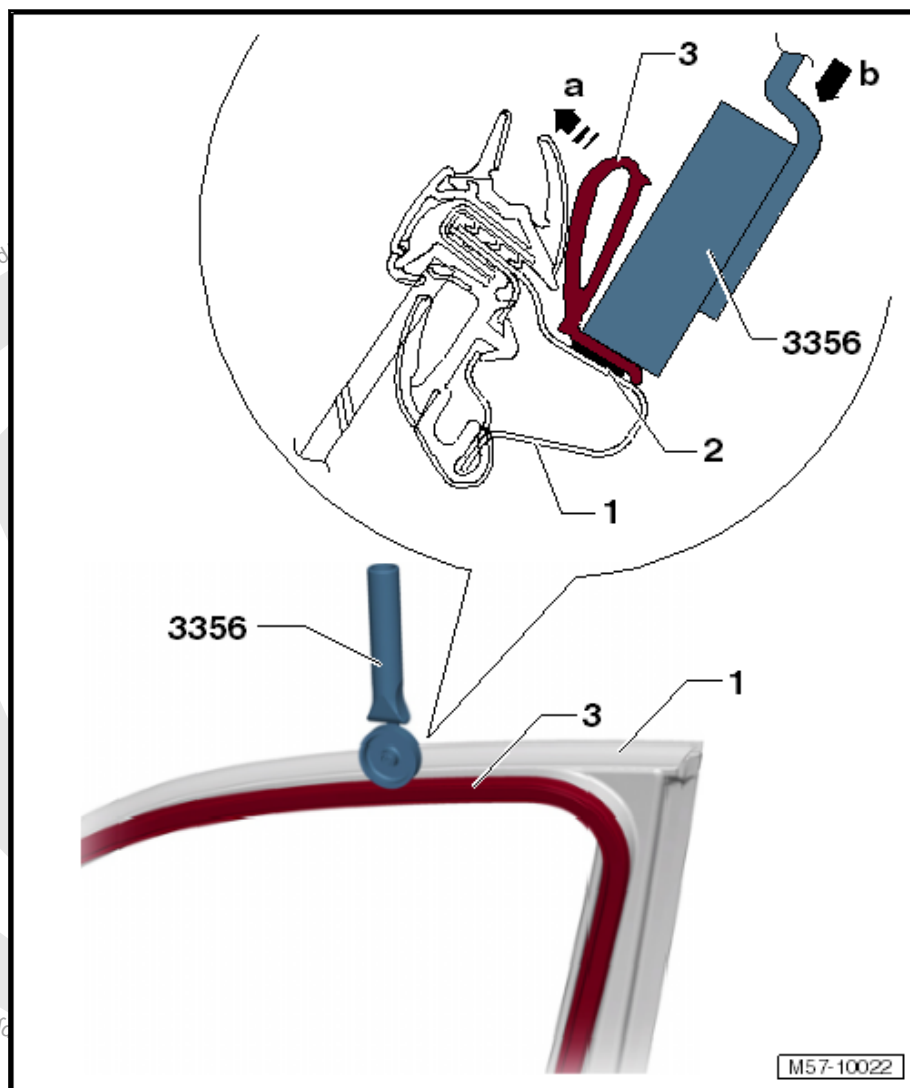


- Vulcanized point -arrow b- of outer door seal -1- is located in center area of door entry sill.
- Pull off the foil cover and apply seal onto door in upper radius -arrow a-. Do not stretch the outer door seal excessively so that the seal is not too long at the end.





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- Press the entire adhesive surface of the seal -3- firmly all around the door -1- using the Roller - 3356- .
- In this way, the seal is pressed so far into the side -arrow a- so that the Roller - 3356- comes into direct contact with the seal contact surface.

The force -arrow b- from the roller can only reach the adhesive surface -2- if the procedure described above is used.

- If the seal has become too long, cut it back to the correct length and press on the joint area.
- If the seal -3- comes loose again in small areas, press these on again using the Roller - 3356- .



#### Note

*To ensure that the outer door seal does not loosen or slide again, do not close the door for 2 hours.*





## 60 – Sunroof

### 1 Panorama Sliding Sunroof (Arvin-Meritor)

- ⇒ [“1.1 Tools”, page 153](#)
- ⇒ [“1.2 Function”, page 154](#)
- ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#)
- ⇒ [“1.4 Overview - Panorama Sliding Sunroof”, page 156](#)
- ⇒ [“1.5 Glass Panel, Removing and Installing”, page 157](#)
- ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#)
- ⇒ [“1.7 Front and Rear Glass Panel Height, Adjusting”, page 162](#)
- ⇒ [“1.8 Glass Sunroof Panel Seals, Replacing”, page 163](#)
- ⇒ [“1.9 Outer Seal, Removing and Installing”, page 165](#)
- ⇒ [“1.10 Inner Seal, Replacing”, page 166](#)
- ⇒ [“1.11 Wind Deflector, Removing and Installing”, page 167](#)
- ⇒ [“1.12 Wind Deflector Bearing, Removing and Installing”, page 168](#)
- ⇒ [“1.13 Automatic Rotary Switch for Glass Sunroof Panel and Sun Shade, Removing and Installing”, page 169](#)
- ⇒ [“1.14 Sunroof Motor, Removing and Installing”, page 170](#)
- ⇒ [“1.15 Sun Shade Motor, Removing and Installing”, page 171](#)
- ⇒ [“1.16 Sun Shade, Removing and Installing”, page 172](#)
- ⇒ [“1.17 Overview - Frame”, page 177](#)
- ⇒ [“1.18 Rear Motor Support and Sun Shade Cable, Removing and Installing”, page 178](#)
- ⇒ [“1.19 Assembly Frame, Removing and Installing”, page 182](#)
- ⇒ [“1.20 Rear Lid, Removing and Installing”, page 186](#)
- ⇒ [“1.21 Motor Support, Removing and Installing”, page 188](#)
- ⇒ [“1.22 Front Sunroof Glass Panel Tilt Mechanism and Cable, Removing and Installing”, page 192](#)
- ⇒ [“1.23 Maintenance and Care”, page 194](#)
- ⇒ [“1.24 Operating without Electricity”, page 194](#)
- ⇒ [“1.25 Water Drain Hoses, Cleaning”, page 196](#)
- ⇒ [“1.26 Water Drain Hoses, Removing and Installing”, page 198](#)

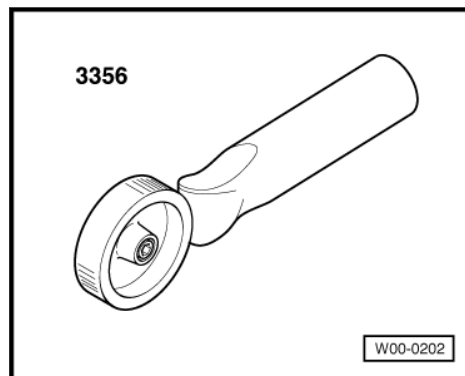
#### 1.1 Tools

Special tools and workshop equipment required

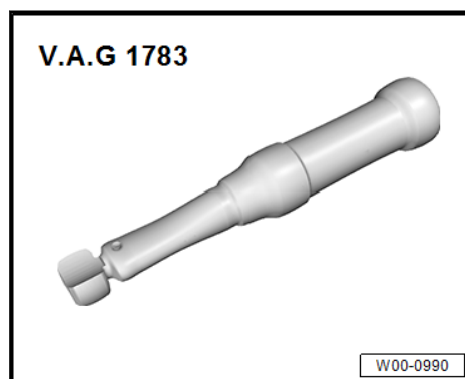




◆ Roller - 3356-



◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



◆ Adhesive Strip Remover - VAS 6349-



## 1.2 Function

The panorama sliding sunroof only works when the ignition is switched on.

After the ignition is switched off, these functions are available until the driver or passenger door is opened.





The opening of front glass panel for sliding and tilt position is pre-selected using the rotary switch -1-.

Opening the glass sunroof in the convenience position -4- prevents most driving noise that may occur when open completely.

The glass sunroof can be tilted and closed by pulling or pushing the rotary switch.

The buttons for opening the sun shade -2- and closing the sun shade -3- are integrated in the rotary switch.

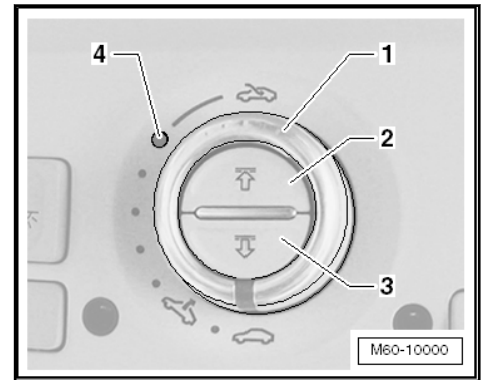
The panorama sliding sunroof is equipped with pinch protection. When an obstruction is met during the closing sequence from the lifting or sliding position, the glass sunroof panel opens again by itself.

There is also an emergency closing function. If there are problems closing the panorama sliding sunroof, it can be forced closed by pulling on the back end of the rotary switch. The rotary switch must be in the "Sunroof closed" position.

**For the emergency close function, the pinch protection is deactivated.**

The motor for the sliding sunroof has overheat protection, which activates under different conditions. After the sliding sunroof motor has cooled down, it can be operated again.

If there is a malfunction in the electrical system, the glass panel and sun shade can be moved manually. Refer to [⇒ "1.24 Operating without Electricity", page 194](#).



### 1.3 Adaptation Panorama Sliding Sunroof



#### Note

- ◆ After changing the glass sunroof panel, a motor, the tilt mechanism or the sun shade, an adaptation must be performed for that particular drive.
- ◆ Pinch protection is switched off when performing an adaptation.

#### Sunroof Motor Adaptation

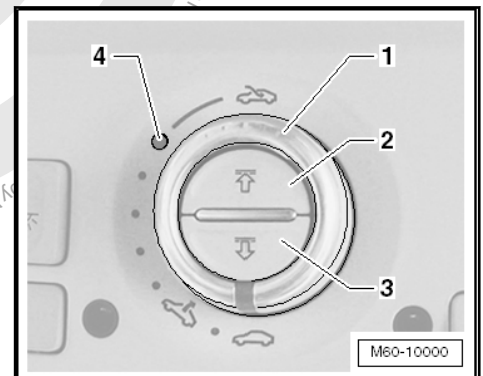
Ignition switched on.

The rotary switch must be in the "Sunroof closed" position.

- Pull the rotary switch -1- down and hold it in that position during the entire adaptation process (approximately 20 seconds).
- During the adaptation process, the glass sunroof will first close and then retract by approximately 200 mm.
- After the panel closes again, the adaptation process is completed and the switch can be released.

#### Motor adaptation process for the sun shade

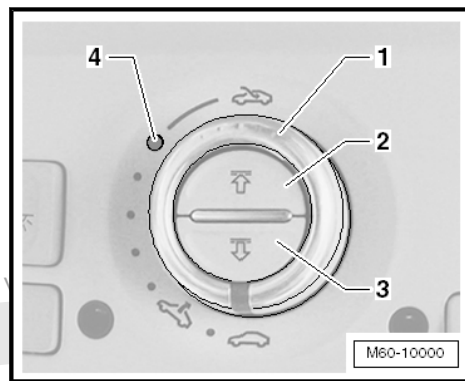
Ignition switched on.







- Press the close sun shade button -3- and hold it in this position during the engine adaptation process (approximately 20 seconds).
- During the adaptation process, the sun shade will first close and then retract by approximately 200 mm.
- After the sun shade has been closed again all the way, the adaptation process is completed and the switch can be released.



## 1.4 Overview - Panorama Sliding Sunroof





## 1 - Outer Seal

- ❑ Replacing. Refer to ➤ ["1.9 Outer Seal, Removing and Installing", page 165](#).

## 2 - Rear Glass Panel

- ❑ Removing and Installing. Refer to ➤ ["1.6 Rear Glass Panel, Removing and Installing", page 160](#).
- ❑ Adjusting. Refer to ➤ ["1.7 Front and Rear Glass Panel Height, Adjusting", page 162](#).

## 3 - Front Glass Panel

- ❑ Removing and Installing. Refer to ➤ ["1.5 Glass Panel, Removing and Installing", page 157](#).
- ❑ Adjusting. Refer to ➤ ["1.7 Front and Rear Glass Panel Height, Adjusting", page 162](#).

## 4 - Frame

- ❑ Overview. Refer to ➤ ["1.17 Overview - Frame", page 177](#).
- ❑ Removing and Installing. Refer to ➤ ["1.19 Assembly Frame, Removing and Installing", page 182](#).

## 5 - Sun Shade

- ❑ Removing and Installing. Refer to ➤ ["1.16 Sun Shade, Removing and Installing", page 172](#).

## 6 - Sun Shade Motor

- ❑ Removing and Installing. Refer to ➤ ["1.15 Sun Shade Motor, Removing and Installing", page 171](#).
- ❑ Adaptation. Refer to ➤ ["1.3 Adaptation Panorama Sliding Sunroof", page 155](#).

## 7 - Sunroof Motor

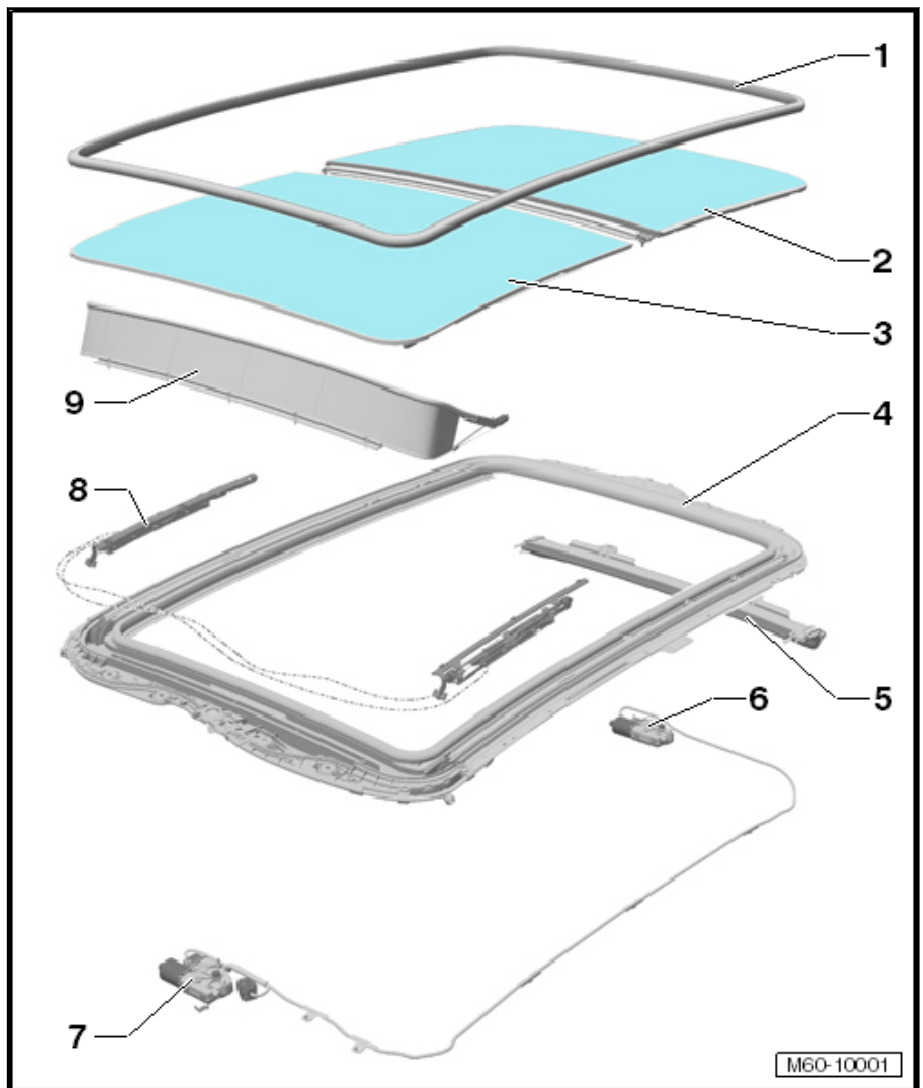
- ❑ Removing and Installing. Refer to ➤ ["1.14 Sunroof Motor, Removing and Installing", page 170](#).
- ❑ Adaptation. Refer to ➤ ["1.3 Adaptation Panorama Sliding Sunroof", page 155](#).

## 8 - Tilting Mechanism

- ❑ Removing and Installing. Refer to ➤ ["1.22 Front Sunroof Glass Panel Tilt Mechanism and Cable, Removing and Installing", page 192](#).

## 9 - Wind Deflector

- ❑ Removing and Installing. Refer to ➤ ["1.11 Wind Deflector, Removing and Installing", page 167](#).



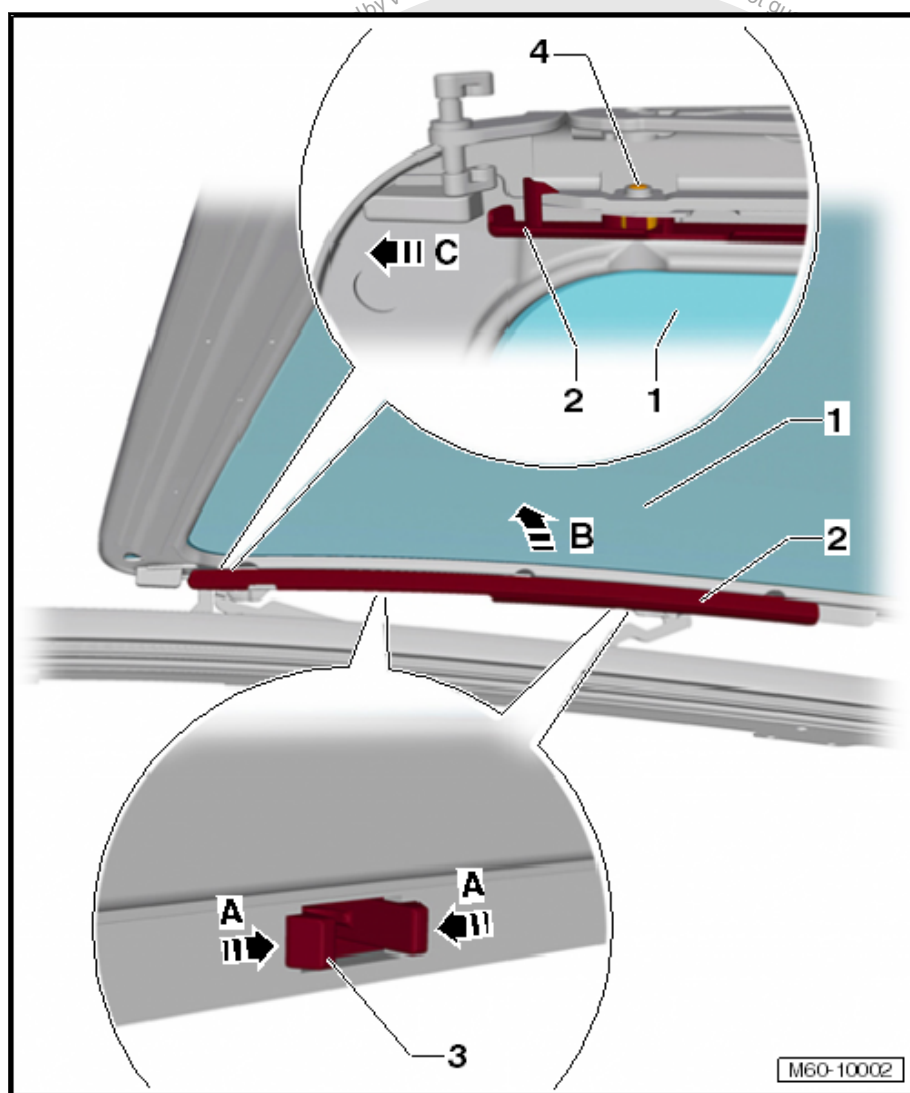
## 1.5 Glass Panel, Removing and Installing

➤ ["1.5.1 Removing", page 157](#)

➤ ["1.5.2 Installing", page 159](#)

### 1.5.1 Removing





- Open the glass panel -1- until the trim -2- is accessible.
- Engage the retaining tabs -3- by pressing on the back side in the direction of -arrow A- .
- Pull the trim -2- in the rear area downward and then remove it inward in the direction of the -arrow B- and remove from the bolt -4-.
- Slide the trim forward in the direction of -arrow C- and remove it.





- Remove the left and right screws -2- from the glass sunroof panel -1-.



#### Note

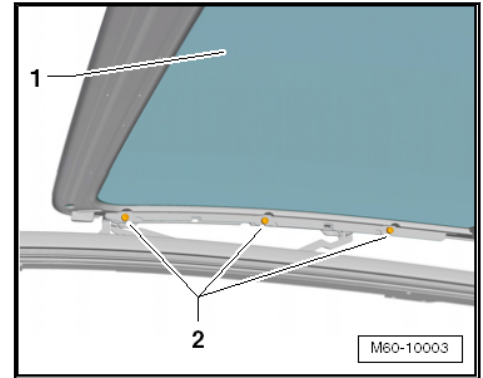
*When removing the screws, use a magnetic tool so that the screws cannot fall into the Panorama sliding sunroof mechanism.*

- Remove the glass sunroof panel upward.



#### Caution

*Do not try to use the tilt feature when the glass sunroof panel is not installed, otherwise the wind deflector could be damaged (scratched).*

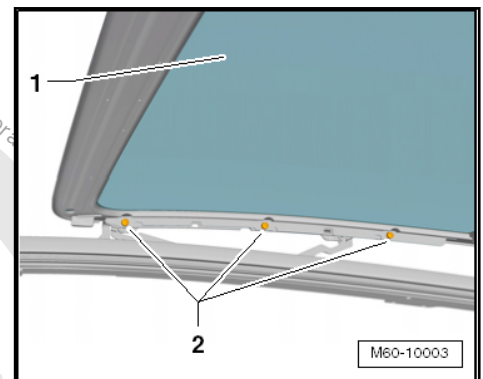


## 1.5.2 Installing



#### Note

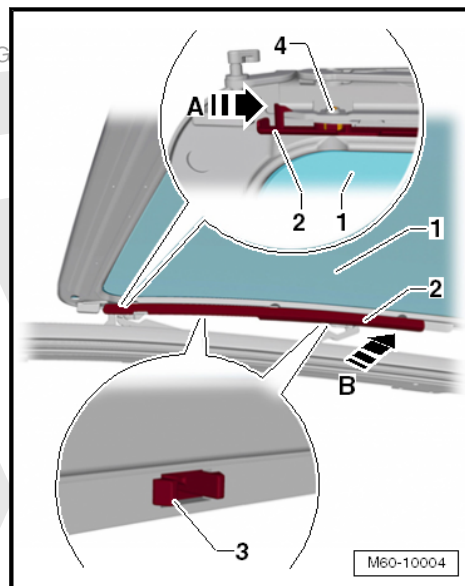
- ◆ Always use new screws when installing or removing the glass sunroof panel.
- ◆ When installing the screws, use a magnetic tool so that the screws cannot fall into the Panorama sliding sunroof mechanism.
- Insert the glass sunroof panel -1- from the top and install the screws -2- but do not tighten them.
- Install the front glass sunroof panel. Refer to ["1.7 Front and Rear Glass Panel Height, Adjusting", page 162](#).
- Tighten the screws -2- to 5 Nm.







- Engage the front of the trim -2- in the glass panel -1- -arrow A-.
- Press the trim in the direction of the -arrow B- onto the bolt -4- and clip the retaining tabs -3- in on the rear side.
- After completing all the work, perform an sunroof motor adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .



## 1.6 Rear Glass Panel, Removing and Installing

⇒ [“1.6.1 Removing”, page 160](#)

⇒ [“1.6.2 Installing”, page 161](#)

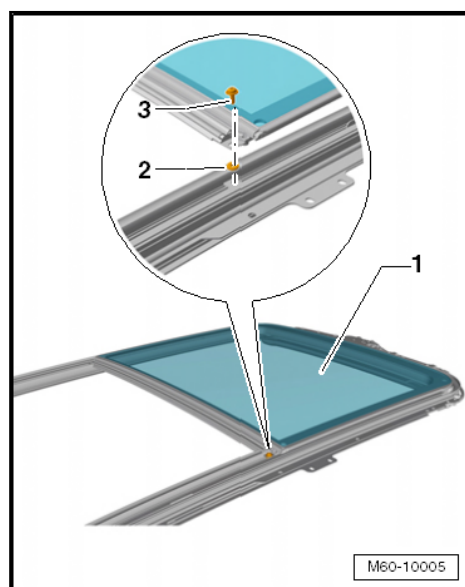
### 1.6.1 Removing



#### Note

*When removing the screws, use a magnetic tool so that the screws cannot fall into the Panorama sliding sunroof mechanism.*

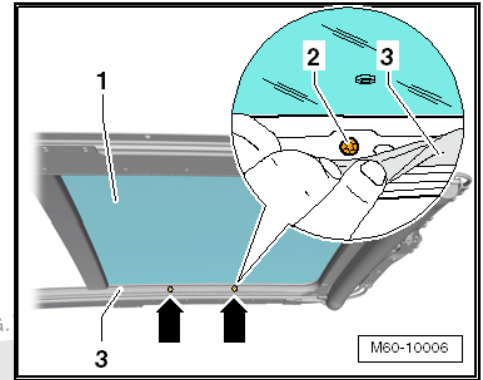
- Open the front glass roof panel completely by pressing the rotary switch past the comfort setting.
- Remove the rear glass sunroof panel -1- screws -3-.
- Remove the spacer -2- under the bolting surface.
- Move the front glass sunroof panel into the “tilted” position.







- Pull the inner seal -3- slightly where shown -arrow- and remove the screws -2-.
- Remove the rear glass sunroof panel -1- upward.

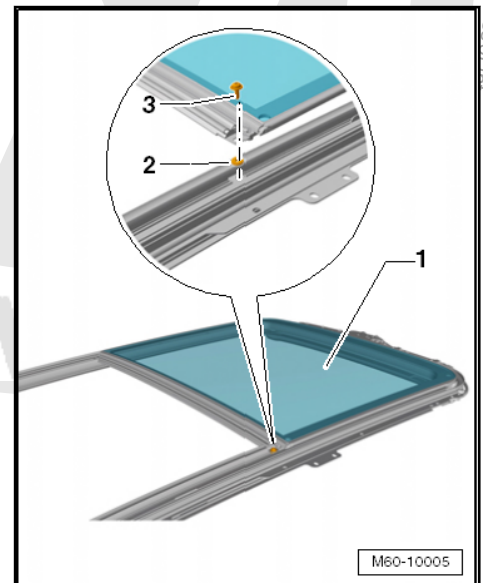


## 1.6.2 Installing

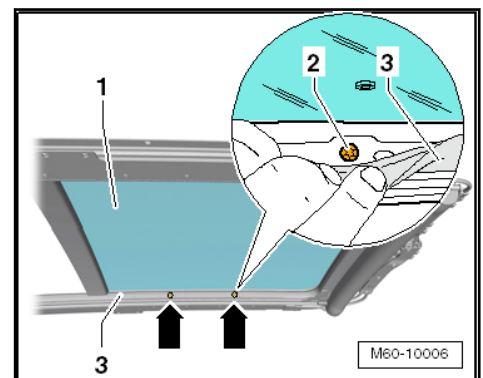
Install in reverse order of removal.

### Note

- ◆ Always use new screws when installing or removing the glass sunroof panel.
- ◆ When installing the screws, use a magnetic tool so that the screws cannot fall into the Panorama sliding sunroof mechanism.
- Insert the glass sunroof panel into the roof from the top.
- Install the spacer -2- and tighten the bolt -3- (5 Nm).



- Pull the inner seal -3- slightly where shown -arrow- and install the screws -2- but do not tighten them.
- Install the rear glass sunroof panel. Refer to ⇒ [“1.7 Front and Rear Glass Panel Height, Adjusting”, page 162](#) .
- Tighten the screws to 5 Nm after adjusting the rear glass sunroof panel.
- After completing all the work, perform an sunroof motor adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .







## 1.7 Front and Rear Glass Panel Height, Adjusting



### Note

- ◆ Only adjust the front glass panel at the front edge and the rear glass panel at the rear edge.
- ◆ To achieve the best possible exterior optical characteristics, make sure that the adjustment on left and right sides is performed as evenly (symmetrically) as possible.

### Height Adjustment, Checking

- Use a depth gauge to check the adjustment of the front glass sunroof panel -1- and the rear glass sunroof panel -2-.

- ◆ Dimension -a- :  $1.5 \text{ mm} \pm 1 \text{ mm}$
- ◆ Dimension -b- :  $1 \pm 1 \text{ mm}$
- ◆ Dimension -c- :  $1 \pm 1 \text{ mm}$

If the measured values deviate from the specified values, then the glass sunroof panel must be adjusted accordingly.

- ◆ Front Glass Panel, Adjusting. Refer to [⇒ page 162](#).
- ◆ Rear Glass Panel, Adjusting. Refer to [⇒ page 163](#).

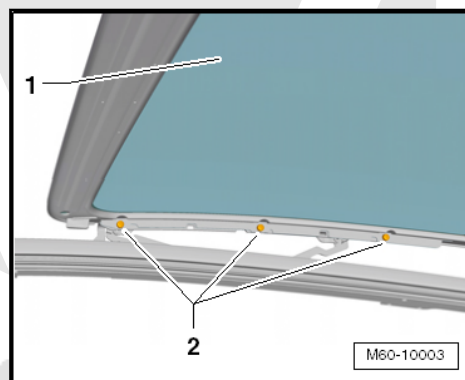
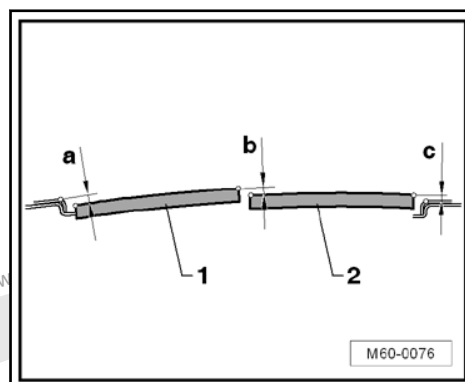
### Front Glass Panel, Adjusting



### Note

The glass panel height adjustment is to be performed after the glass panel has been closed out of sliding position.

- Remove the trim. Refer to [⇒ "1.5 Glass Panel, Removing and Installing", page 157](#).
- Loosen both front left and right screws -2- for the glass sunroof panel -1- only.
- Close the glass sunroof panel.

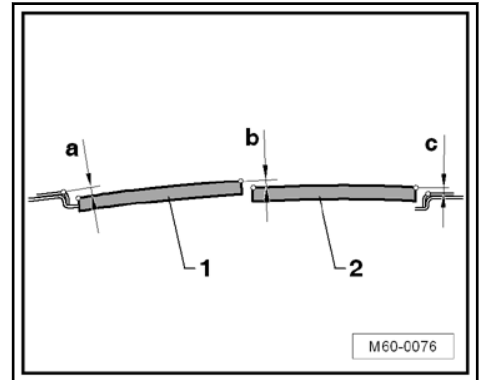




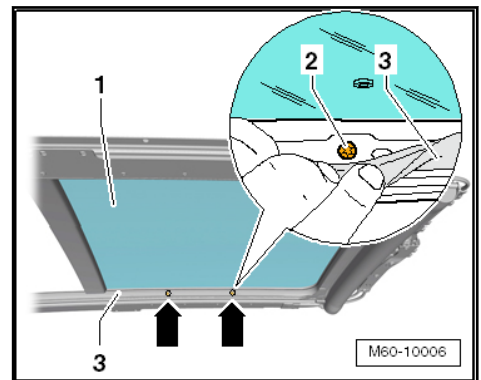


- Adjust the glass sunroof panel -1- according to the illustration.
- ◆ Dimension -a- :  $1.5 \text{ mm} \pm 1 \text{ mm}$
- ◆ Dimension -b- :  $1 \pm 1 \text{ mm}$
- ◆ Dimension -c- :  $1 \pm 1 \text{ mm}$
- Tighten the left and right screws (5 Nm).
- Install the trim. Refer to ⇒ [“1.5.2 Installing”, page 159](#) .

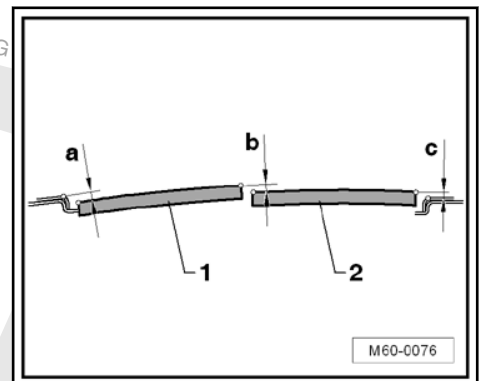
#### Rear Glass Panel, Adjusting



- Pull the inner seal -3- slightly toward the inside where shown -arrow- and loosen the screws -2- on the rear glass cover -1-



- Adjust the glass sunroof panel -2- according to the illustration.
- ◆ Dimension -a- :  $1.5 \text{ mm} \pm 1 \text{ mm}$
- ◆ Dimension -b- :  $1 \pm 1 \text{ mm}$
- ◆ Dimension -c- :  $1 \pm 1 \text{ mm}$
- Tighten the left and right screws (5 Nm).



## 1.8 Glass Sunroof Panel Seals, Replacing

- Remove the rear glass panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .





### Replace the front seal and the inner seal.

- Remove the seal from the rear glass sunroof panel -1- .
- ◆ Front seal 2
- ◆ Inner seal 3
- Remove any adhesive residue using Adhesive Strip Remover - VAS 6349- .
- The adhesion surface on the rear glass sunroof panel must be free of dust and grease.
- Clean the adhesive surface thoroughly with Cleaning Solution - D 009 401 04- .



#### Note

*To ensure the seal has good bonding properties, it should not be bonded at temperatures less than 20° C.*

- Remove the protective strip from the adhesive on the new seal and press the seal on both ends.
- Press the seal on evenly to prevent any excess length.
- Press the seal evenly using the Roller - 3356- .
- Install the rear glass sunroof panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .

### Replacing the side seal

- Remove the side seal -2- from the rear glass panel profile -1- .



#### Note

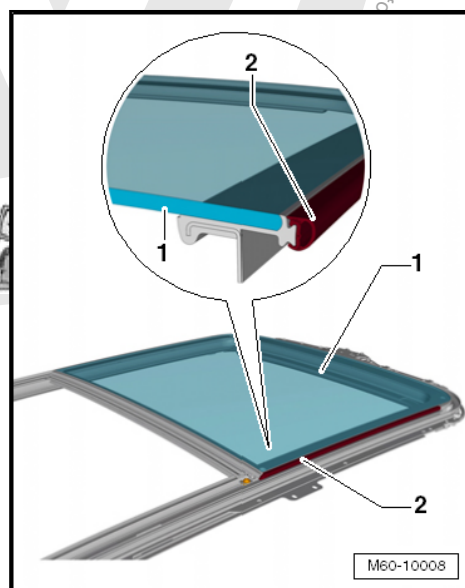
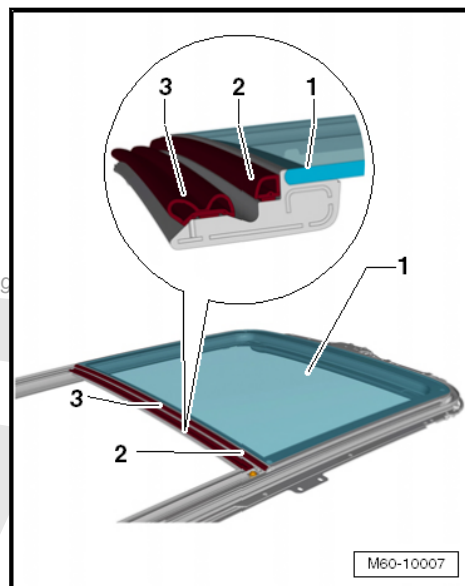
*The seal is supplied with excess length. Cut the new seal to the necessary length. It is recommended to leave the seal 1 - 2 mm longer than necessary so that it can be stretched during installation.*

- Remove any adhesive residue using Adhesive Strip Remover - VAS 6349- .
- The adhesion surface on the rear glass sunroof panel must be free of dust and grease.
- Clean the adhesive surface thoroughly with Cleaning Solution - D 009 401 04- .



#### Note

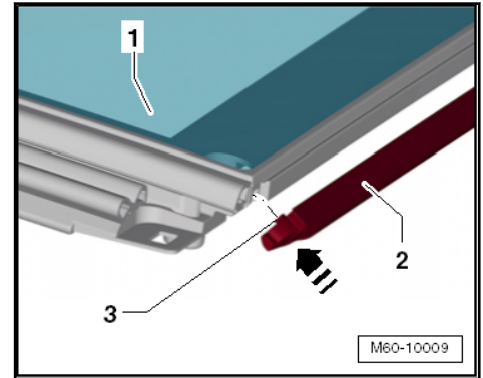
- ◆ *The seal is supplied with excess length. Cut the new seal to the necessary length. It is recommended to leave the seal 1 - 2 mm longer than necessary so that it can be stretched during installation.*
- ◆ *To ensure the seal has good bonding properties, it should not be bonded at temperatures less than 20° C.*
- Remove the protective foil from the adhesive tape on the new seal.



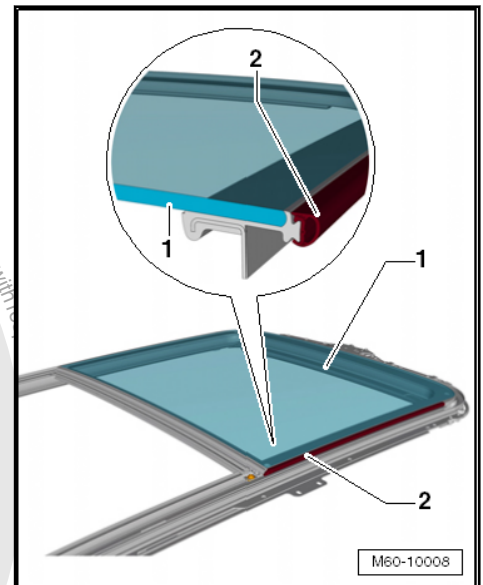




- Attach the new seal -2- with the retainer -3- to the glass sunroof panel -1-.
- Press the seal on both ends.



- Press the seal -2- on to the glass sunroof panel profile -1- even out any excess length.
- Press the seal evenly using the Roller - 3356- .
- Install the rear glass sunroof panel. Refer to ➔ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .



## 1.9 Outer Seal, Removing and Installing

### Removing

- Remove the front glass panel. Refer to ➔ [“1.5 Glass Panel, Removing and Installing”, page 157](#) .





- Remove the rear glass panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .
- Remove the outer seal -1- in the adhesion area -3- from the roof -2- .
- Remove any adhesive residue using Adhesive Strip Remover - VAS 6349- .
- The adhesive surface on the roof cutout must be free of dust and grease.
- Clean the adhesive surface thoroughly with Cleaning Solution - D 009 401 04- .

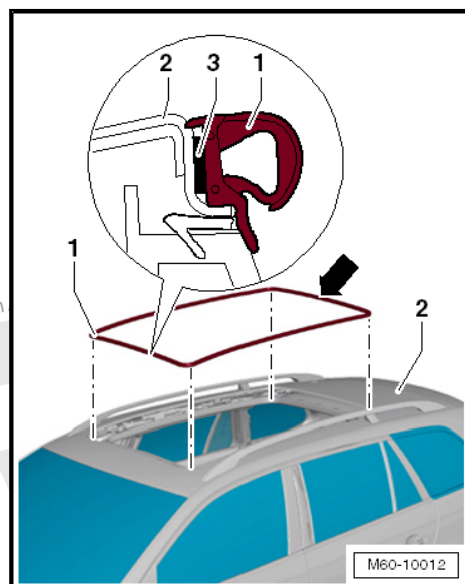
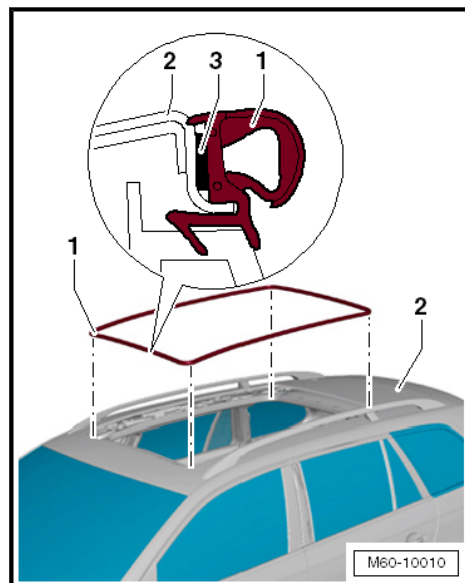


#### Note

- ◆ *The seal is supplied with excess length. Cut the new seal to the necessary length. It is recommended to leave the seal 1 - 2 mm longer than necessary so that it can be stretched during installation.*
- ◆ *To ensure the seal has good bonding properties, it should not be bonded at temperatures less than 20° C.*
- ◆ *Install the glass panel 30 minutes after the bonding the outer seal so that the seal does not come loose again.*

#### Installing

- Center the new outer seal -1- so that the joint -arrow- is at the center of the rear roof opening.
- Remove the protective film from the adhesive tape -3- on the new outer seal -1- and press the seal onto the roof -3- .
- The seal must not be pulled at the edges otherwise these areas can easily compress.
- Press the outer seal down using the Roller - 3356- two times evenly all around.
- Install the rear glass sunroof panel.
- Install the front glass sunroof panel.



### 1.10 Inner Seal, Replacing

- Remove the front glass panel. Refer to ⇒ [“1.5 Glass Panel, Removing and Installing”, page 157](#) .
- Remove the rear glass panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .



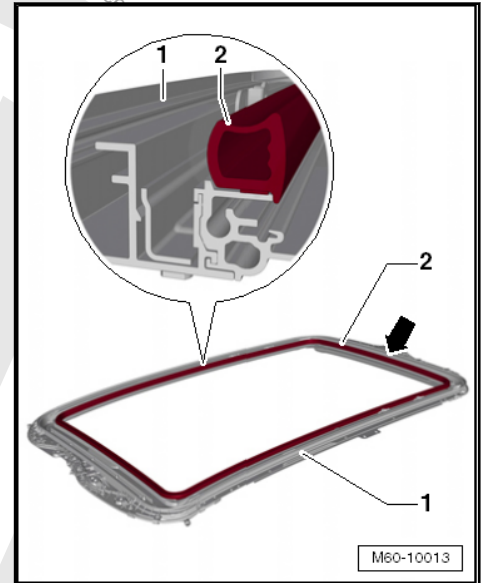


- Remove the inner seal -2- from the assembly frame -1-.
- Remove any adhesive residue using Adhesive Strip Remover - VAS 6349- .
- Make sure there is no dust or grease on the adhesive surface.
- Clean the adhesive surface thoroughly with Cleaning Solution - D 009 40104- .

**i Note**

*To ensure the seal has good bonding properties, it should not be bonded at temperatures less than 20° C.*

- Place the new inner seal -2- in the center of the rear roof opening on the adhesive side of the assembly frame -1-.
- Remove the protective foil from the adhesive tape on the inner seal in sections and press it on.
- The seal must not be pulled at the edges otherwise these areas can easily compress.
- Press the inner seal down using the Roller - 3356- two times evenly all around.
- Install the rear glass sunroof panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .
- Install the front glass sunroof panel. Refer to ⇒ [“1.5 Glass Panel, Removing and Installing”, page 157](#) .



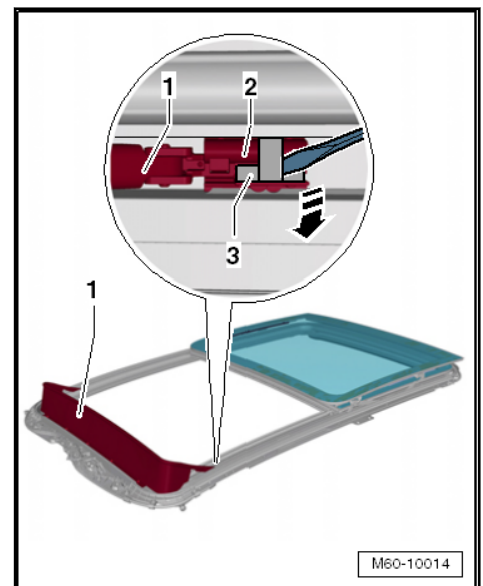
## 1.11 Wind Deflector, Removing and Installing

⇒ [“1.11.1 Removing”, page 167](#)

⇒ [“1.11.2 Installing”, page 168](#)

### 1.11.1 Removing

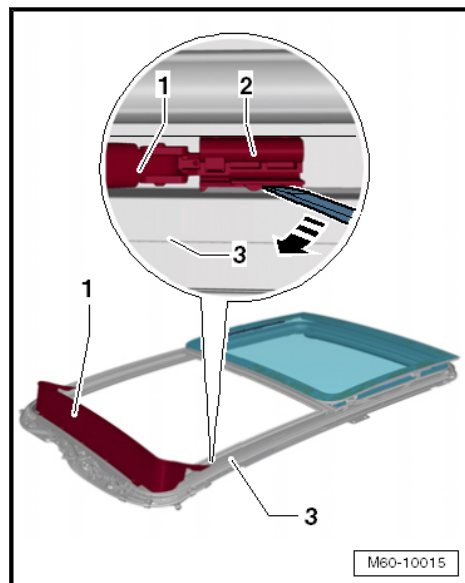
- Open the glass sunroof panel all the way forward.
- Unclip the clips -3- using a screwdriver from the mounting bracket -2- for the wind deflector -1- .



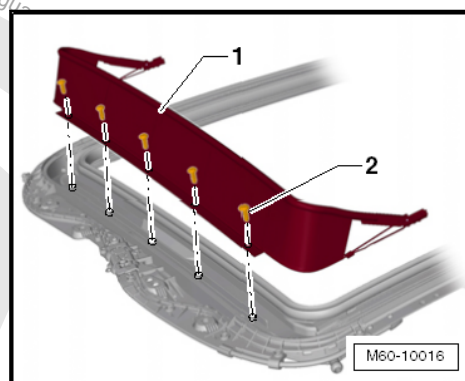




- Unclip the mounting bracket -2- for the wind deflector -1- out of the assembly frame -3- using a screwdriver.



- Remove the screws -2- on the wind deflector -1- .
- Remove the wind deflector -1- upward.



### 1.11.2 Installing

Install in reverse order of removal.

#### Tightening Specification

Wind deflector screws 2 Nm



#### Note

- ◆ The wind deflector mounting bracket must audibly engage.
- ◆ Always replace the mounting bracket clips after it has been disassembled.

### 1.12 Wind Deflector Bearing, Removing and Installing

⇒ [“1.12.1 Removing”, page 168](#)

⇒ [“1.12.2 Installing”, page 169](#)

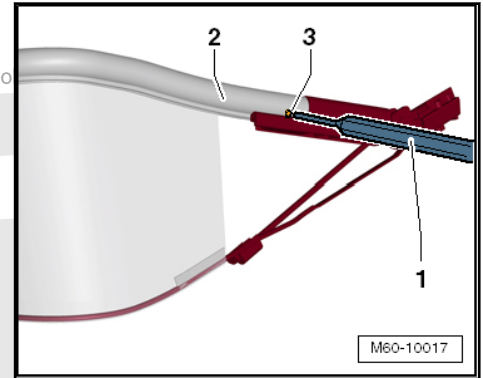
#### 1.12.1 Removing

- Remove the wind deflector. Refer to ⇒ [“1.11.1 Removing”, page 167](#) .

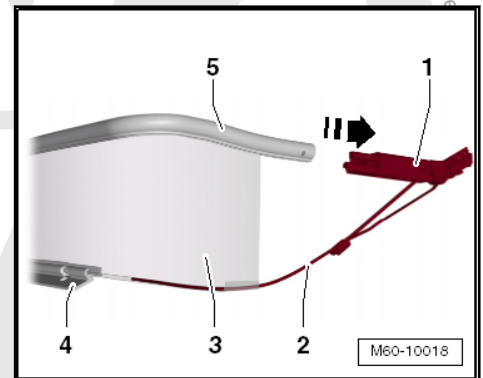




- Press the alignment pin -3- out of the upper screen frame -2- using a drift -1-.



- Remove the wind deflector bearing -1- in the -direction of the arrow- from the upper screen frame -5- .
- Remove the tension wire -2- from the lower screen frame -4- and remove the screen -3- .



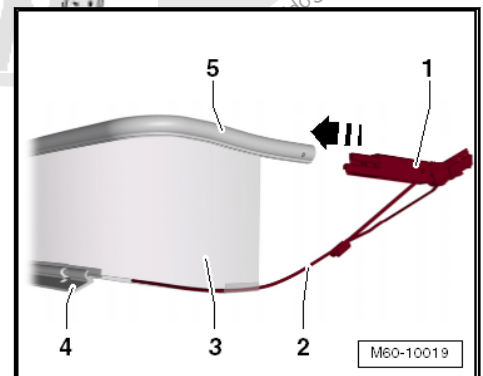
### 1.12.2 Installing

- Slide the tension wire -2- carefully through the net -3- and all the way into the lower screen frame -4-.

Perform the rest of the installation in the reverse order of removal.

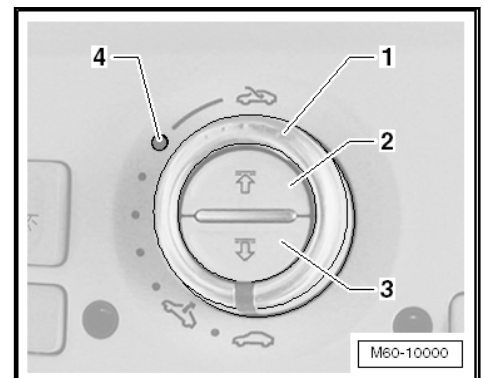
Use a new mounting pin to secure the wind deflector bearing.

- Install the wind deflector. Refer to ⇒ [“1.11.1 Removing”](#), page 167 .



### 1.13 Automatic Rotary Switch for Glass Sunroof Panel and Sun Shade, Removing and Installing

- Remove the automatic rotary switch for the panorama sliding sunroof glass panel. Refer to ⇒ Electrical Equipment; Rep. Gr. 96 ; Lights and Switches in Roof Trim Panel .







## 1.14 Sunroof Motor, Removing and Installing

⇒ "1.14.1 Removing", page 170

⇒ "1.14.2 Installing", page 171

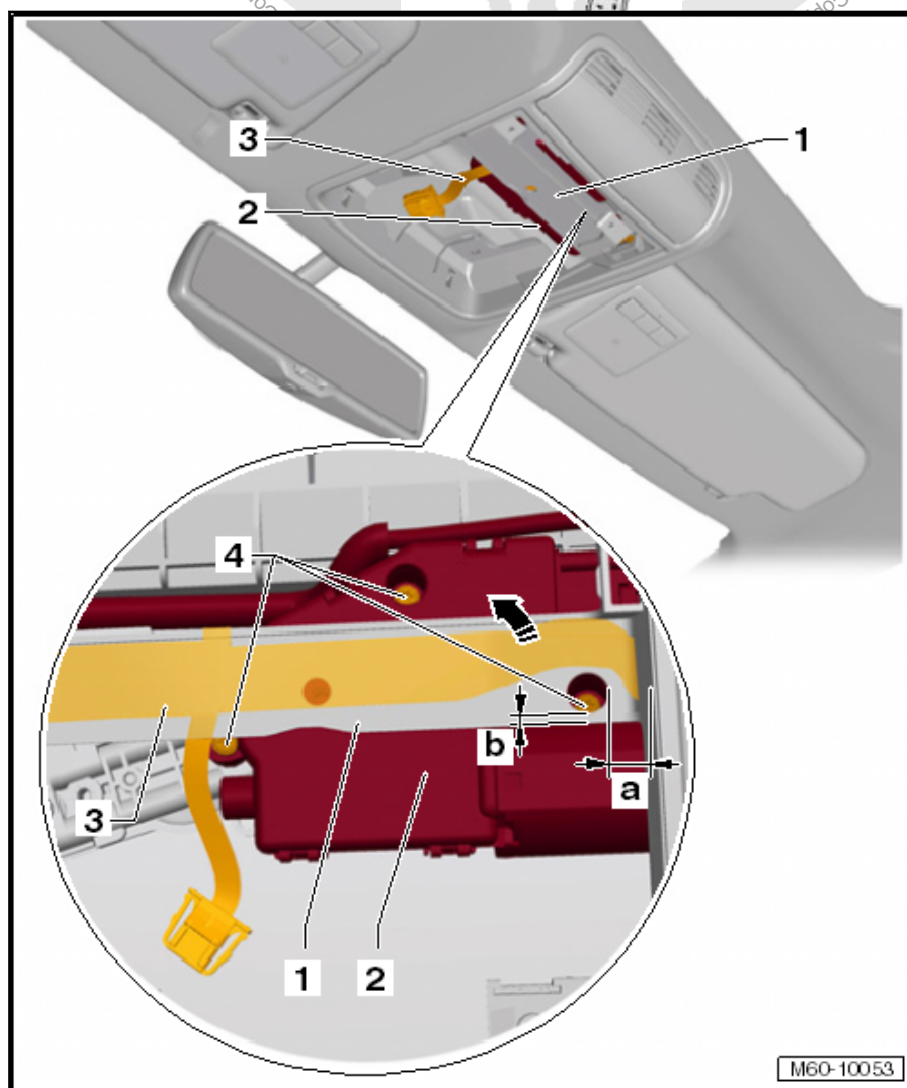
### 1.14.1 Removing

- Remove the front light and control unit. Refer to ⇒ Electrical Equipment; Rep. Gr. 96 ; Lights and Switches in Roof Trim Panel .



#### WARNING

*A flat cable is bonded to the brace in the lamp opening in some versions. Loosen the flat cable from the brace and press it to the side when removing the sliding sunroof opening. Make sure the flat cable is not damaged.*



- Loosen the flat cable -3-, if equipped, from the brace -1- and pull it to the side -arrow-.





It is necessary to drill a 10 mm hole in the brace -1- so that the tool and get to the right bolt -4- on the sunroof motor -2-.

Dimension -a- = 10 mm

Dimension -b- = 2 mm



#### Caution

*Do not damage the sliding sunroof motor underneath when drilling the hole. A drill with a stop that is adjusted to create a 3 mm deep hole may be used.*

- Remove the bolts -4-.
- Lower the sliding sunroof motor slightly and tip it forward.
- Disconnect the connector.

### 1.14.2 Installing

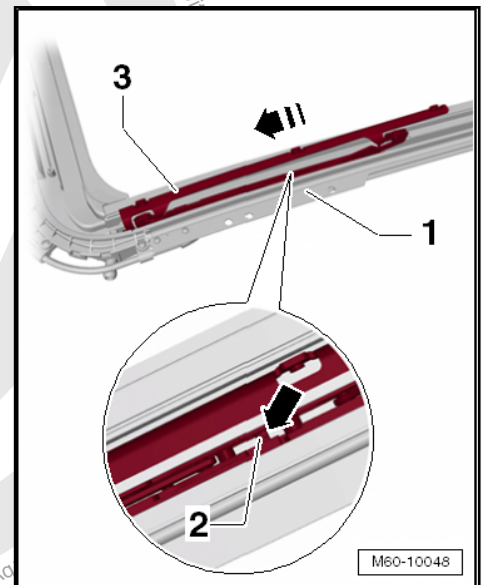
**With the front glass panel removed:**

- Push the tilting mechanism on both sides all the way forward until it has completely lowered.
- Press the tilting mechanism only on those guiding slot locations -arrow- -2-, and not on the rails -3-.

Perform the rest of the installation in the reverse order of removal.

Sliding sunroof motor screws tightening specification: 3.5 Nm

- After completing all the work, perform an sliding sunroof motor adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .



## 1.15 Sun Shade Motor, Removing and Installing

⇒ [“1.15.1 Removing”, page 171](#)

⇒ [“1.15.2 Installing”, page 172](#)

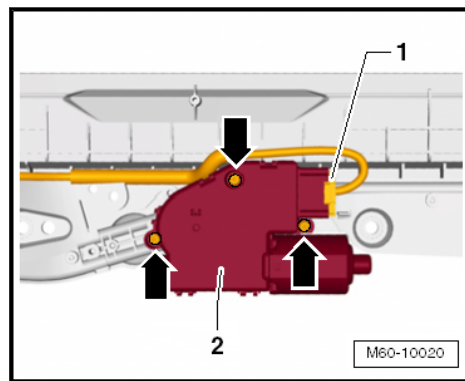
### 1.15.1 Removing

- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels .





- Disconnect the connector -1- on the sun shade motor -2-.
- Remove the bolts -arrow- from the sun shade motor -2-.
- Remove the sun shade motor -2-.



## 1.15.2 Installing

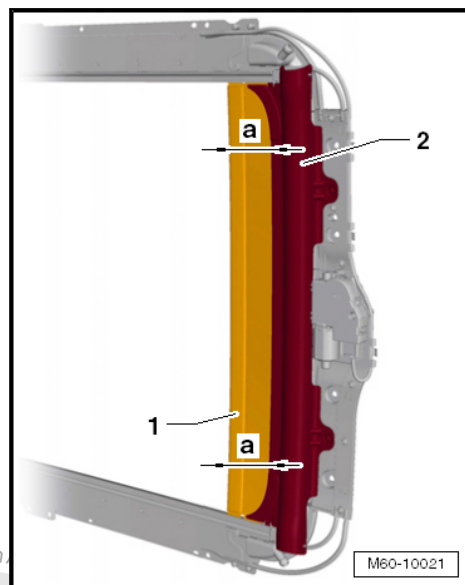
- Prior to installing the motor, make sure the sun shade is parallel by measuring -dimension a- between the shade arch -1- and the shade cartridge -2-.

Perform the rest of the installation in the reverse order of removal.

### Tightening Specification

Screws - 3.5 Nm

- After completing all the work, perform a sun shade motor adaptation. Refer to ⇒ ["1.3 Adaptation Panorama Sliding Sunroof", page 155](#).



## 1.16 Sun Shade, Removing and Installing

⇒ ["1.16.1 Removing", page 172](#)

⇒ ["1.16.2 Installing", page 174](#)

### 1.16.1 Removing

- Move the sun shade all the way into the open position.



#### Note

*If the electrical system malfunctions, using a commercially available hex socket head wrench, rotate the sun shade motor into removal position (completely open). Refer to ⇒ ["1.24 Operating without Electricity", page 194](#).*

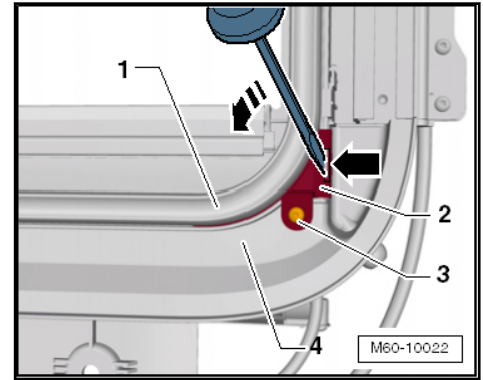
- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels .
- Remove the rear glass panel. Refer to ⇒ ["1.6 Rear Glass Panel, Removing and Installing", page 160](#).





- Remove the bolt -3- from the cap -2-.
- Unclip the cap retainer -arrow- -2- from the rear lid using a screw driver -4- and fold the cap -2- up.

Do not remove the inner seal -1- .



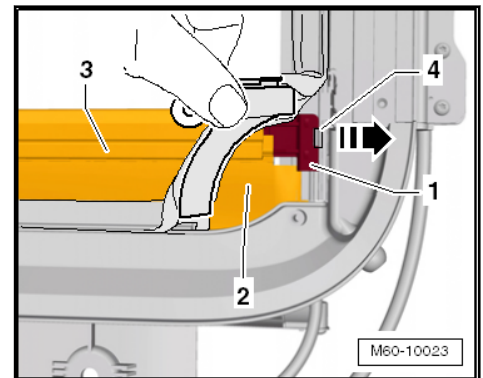
- Carefully lift the sun shade arch -3- together with the sun shade glide -1- .



#### Note

*Be sure not to damage the shade material -2-.*

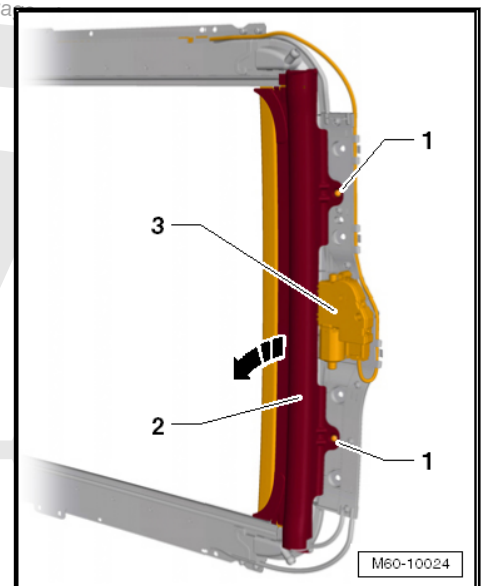
- Pull the sun shade glide -1- to the side in the -direction of the arrow- out of the sun shade arch -3- .



- Remove the bolts -1- for the shade cartridge -2-.

The following steps are to be performed with a second technician.

- Pull the sun shade cartridge -2- in the direction of the -arrow- slightly downward so that it can get past the sun shade motor -3- .







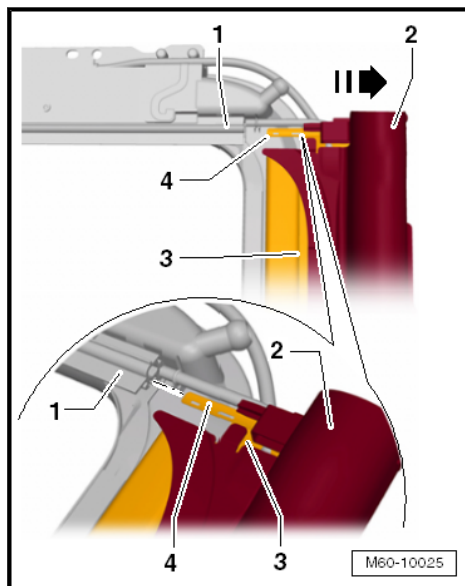
- Remove the sun shade cartridge -2- and the sun shade steel band -4- parallel in the direction of the -arrow- from the sun shade rail -1- .



**Note**

*Be sure not to damage the shade material -3-.*

**Remove the sun shade to replace the sun shade arch.**

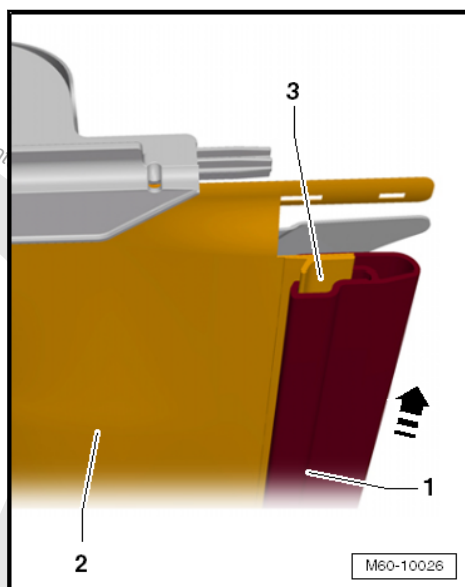


- Carefully remove the sun shade arch -1- in the direction of the -arrow- from the weather strip -3- of the sun shade material -2- .
- Press the new sun shade arch -1- carefully on the weather strip -3-.



**Note**

*Be sure not to damage the shade material -2-.*



## 1.16.2 Installing



**Note**

- ◆ *The sun shade arch must be mounted prior to installing the sun shade cartridge.*
- ◆ *Do not lubricate the sun shade glide and cables.*
- ◆ *The following steps are to be performed with a second technician.*



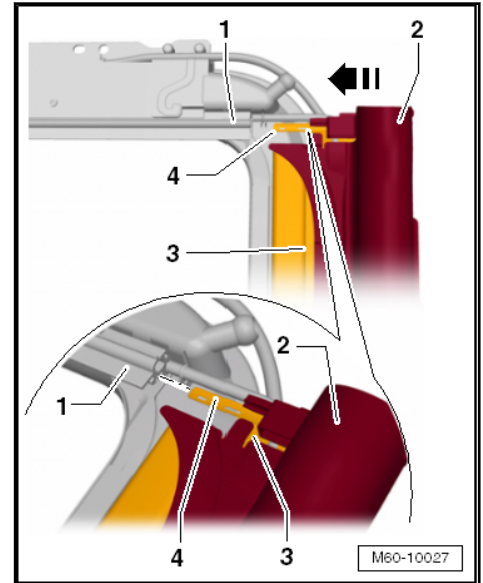


- Push the sun shade cartridge -2- and the sun shade steel band -4- parallel in the direction of the -arrow- on to the sun shade rail -1- .

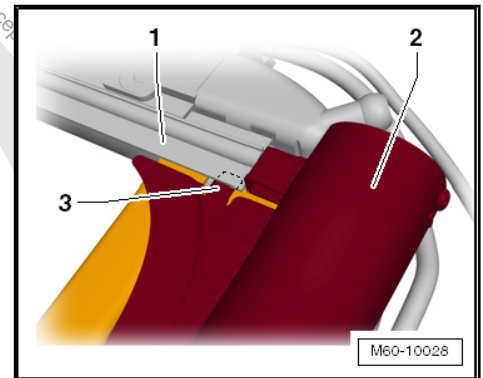


**Note**

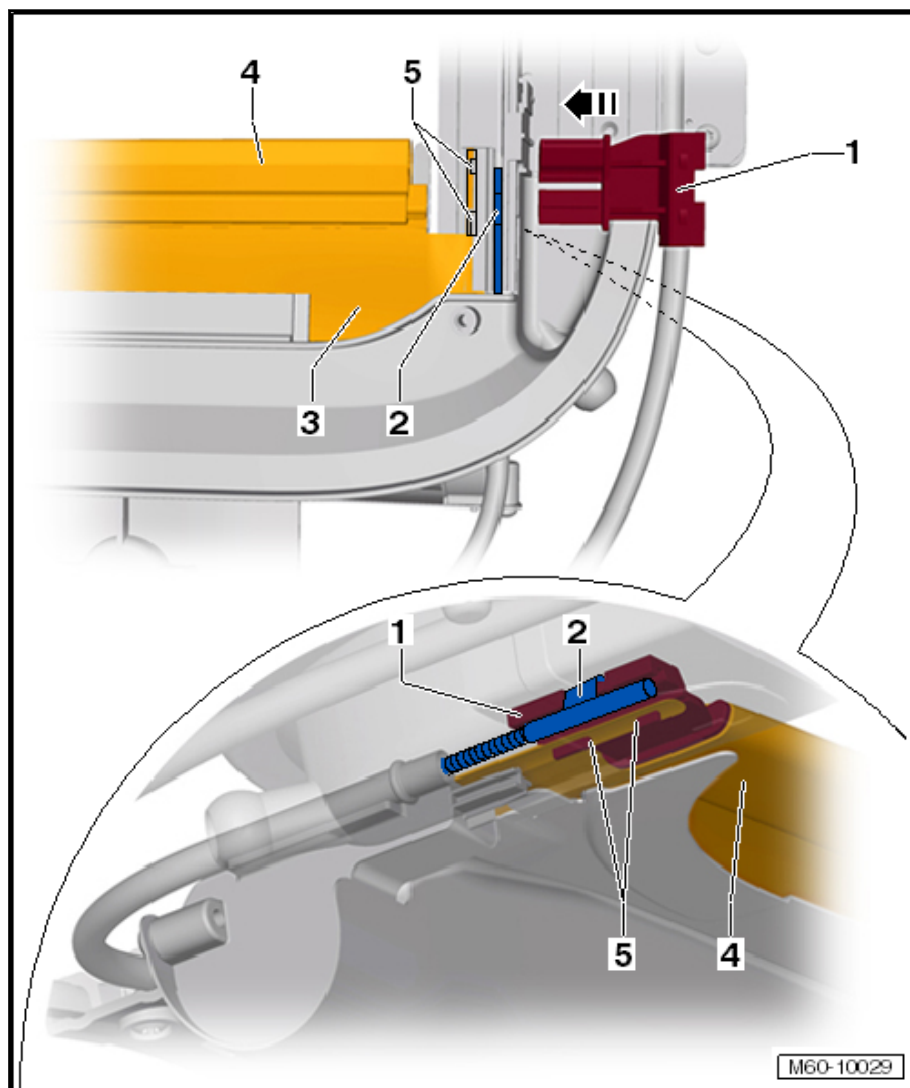
*Be sure not to damage the shade material -3-.*



Press the sun shade cartridge strap -3- -2- under the sun shade rail -1- .







- Press the sun shade slide -1- in the -direction of the arrow- into sun shade arch -4-.



#### Note

- ♦ *Make sure the sun shade glide -1- latches into the cut-out in the sun shade steel band -5- and into the driver of the sun shade cable -2-.*
- ♦ *A second mechanic then installs the opposite side.*

Perform the rest of the installation in the reverse order of removal.

#### Tightening Specifications

Sun shade cartridge screw 3.5 Nm

Screw cap 2 Nm





#### Note

- ◆ *Check the sun shade for ease of movement after installing. Using a commercially available hex wrench, manually move the sun shade drive on the motor. Make sure there are no creases or folds in the sun shade material.*
- ◆ *Next, drive back the sun shade again.*
- Install the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim .
- Install the rear glass sunroof panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .
- After completing all the work, perform a sun shade motor adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .

## 1.17 Overview - Frame





#### 1 - Sun Shade Rail

- ☐ Cannot be replaced separately

#### 2 - Guide Rail

- ☐ Cannot be replaced separately
- ☐ Connected with the front part

#### 3 - Bolt

- ☐ 2 Nm

#### 4 - Rear Lid Part

- ☐ Removing and Installing. Refer to ➤ ["1.20 Rear Lid, Removing and Installing", page 186](#).

#### 5 - Rear Motor Support

- ☐ Removing and Installing. Refer to ➤ ["1.18 Rear Motor Support and Sun Shade Cable, Removing and Installing", page 178](#).

#### 6 - Front Motor Support

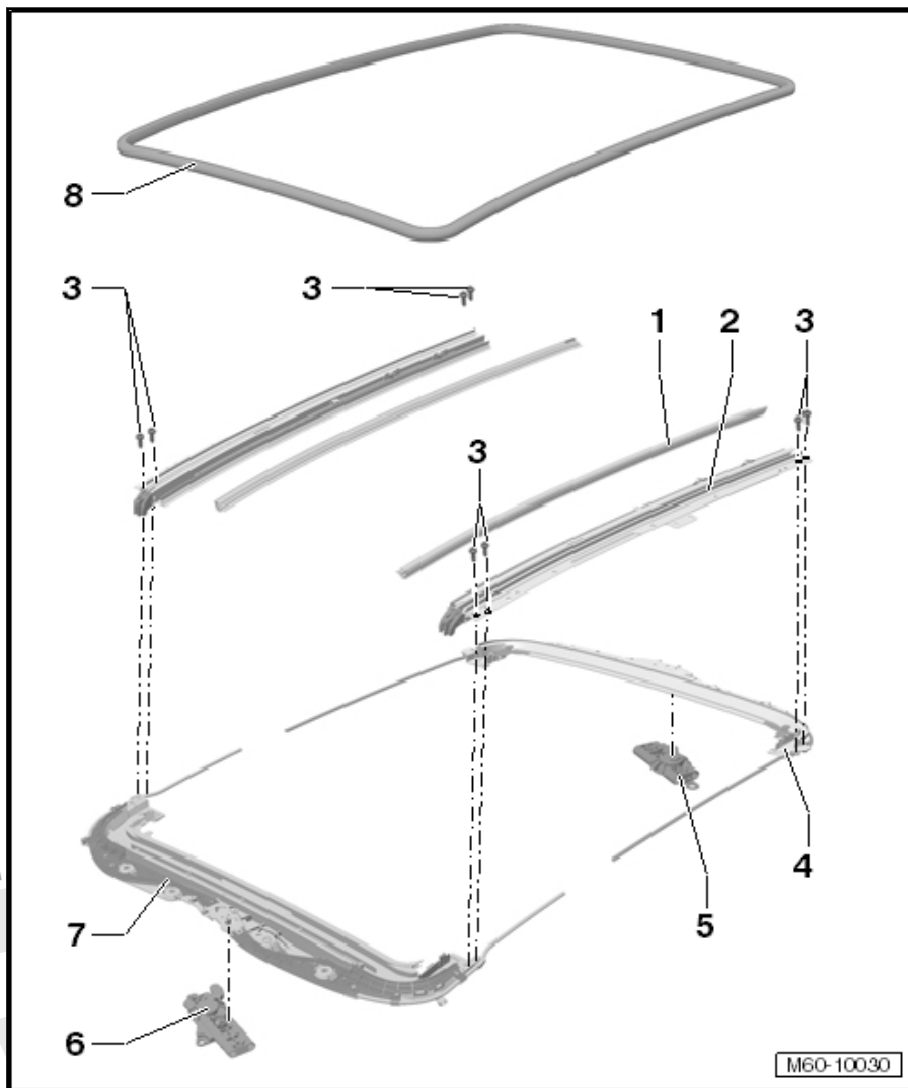
- ☐ Removing and Installing. Refer to ➤ ["1.22 Front Sunroof Glass Panel Tilt Mechanism and Cable, Removing and Installing", page 192](#).

#### 7 - Front Section

- ☐ Cannot be replaced separately
- ☐ Connected with the guide rail

#### 8 - Inner Seal

- ☐ Replacing. Refer to ➤ ["1.10 Inner Seal, Replacing", page 166](#).



### 1.18 Rear Motor Support and Sun Shade Cable, Removing and Installing

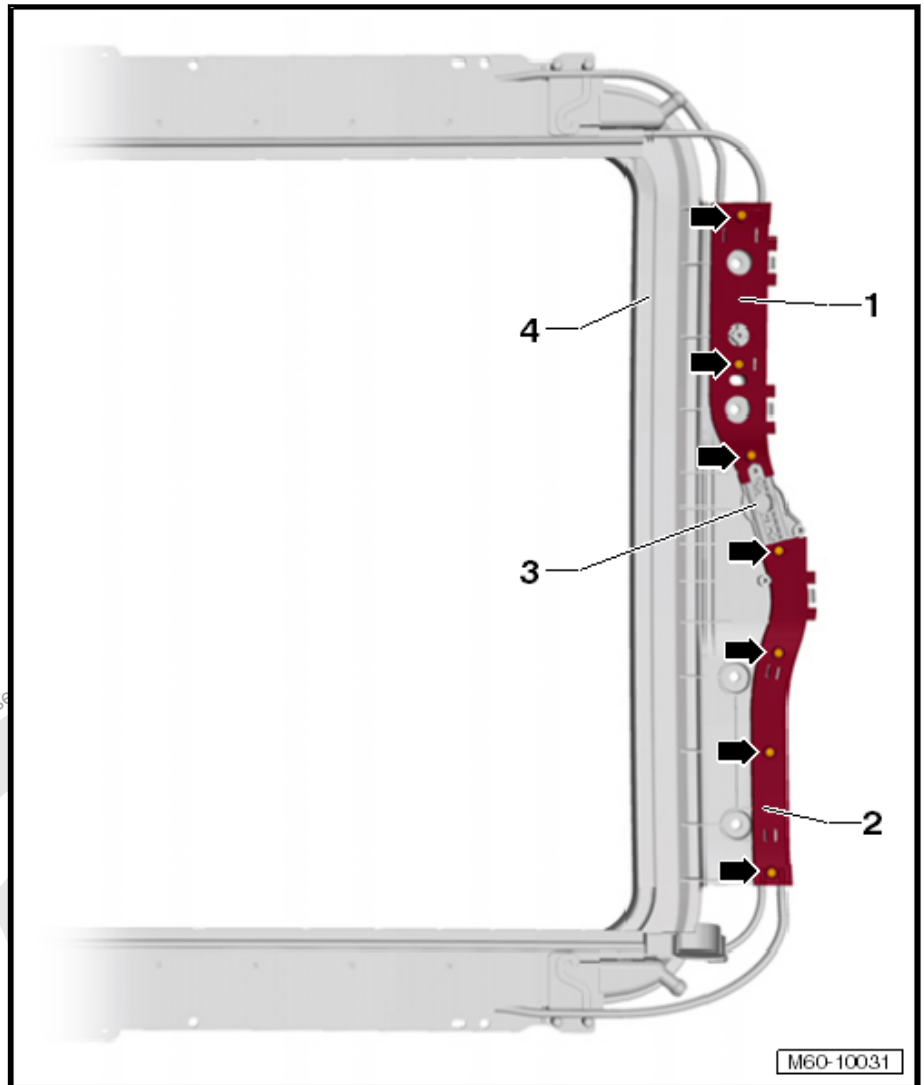
➤ ["1.18.1 Removing", page 178](#)

➤ ["1.18.2 Installing", page 181](#)

#### 1.18.1 Removing

- Remove the headliner. Refer to ➤ Body Interior; Rep. Gr. 70 ; Roof Trim Panels .
- Remove the sun shade motor. Refer to ➤ ["1.15 Sun Shade Motor, Removing and Installing", page 171](#).
- Remove the sun shade. Refer to ➤ ["1.16 Sun Shade, Removing and Installing", page 172](#).

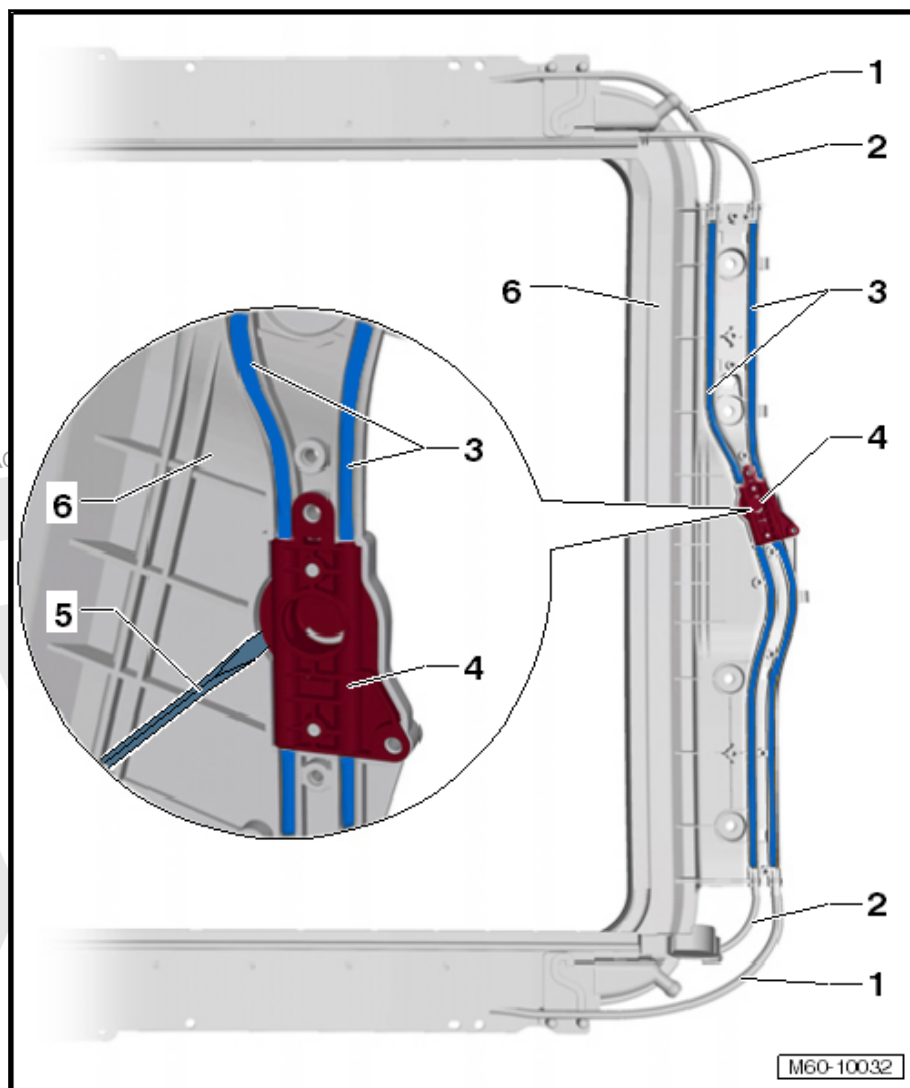




- Remove the bolts -arrow- for the cable cover -1- and -2-.
- Remove the cable covers -1- and -2-.

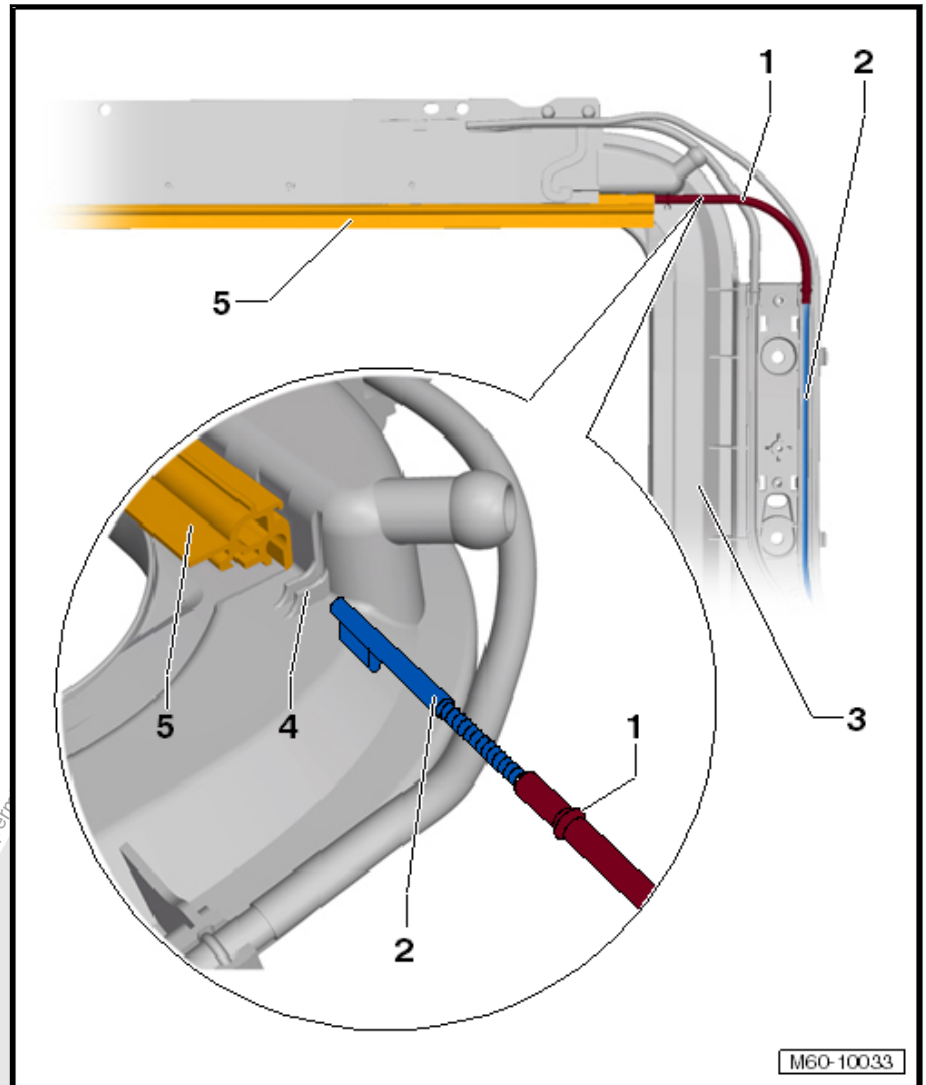
The motor plate -3- remains on the rear panel -4-.





- Disconnect the sun shade cables -3- from the guide tubes -1- and the motor support -4- .
- Pry the motor support -4- out using a suitable screwdriver -5- from the rear lid -6- .





- Remove the guide tube -1- from the support bracket -4- in the rear lid -3-.
- Remove the cable -2- from sun shade rail -5-.

### 1.18.2 Installing

Install in reverse order of removal.

#### Tightening Specifications

Cable cover bolt 2 Nm



#### Note

*Do not lubricate the sun shade slide cables and motor support.*

- Install the sun shade. Refer to ⇒ [“1.16.2 Installing”, page 174](#).
- Install the sun shade motor. Refer to ⇒ [“1.15.2 Installing”, page 172](#).
- Install the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim.





- After completing all the work, perform a panorama sunroof adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#).

## 1.19 Assembly Frame, Removing and Installing

⇒ [“1.19.1 Removing”, page 182](#)

⇒ [“1.19.2 Installing”, page 183](#)

### 1.19.1 Removing



#### Note

*At least two technicians are needed for removing and installing the frame.*

- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels .

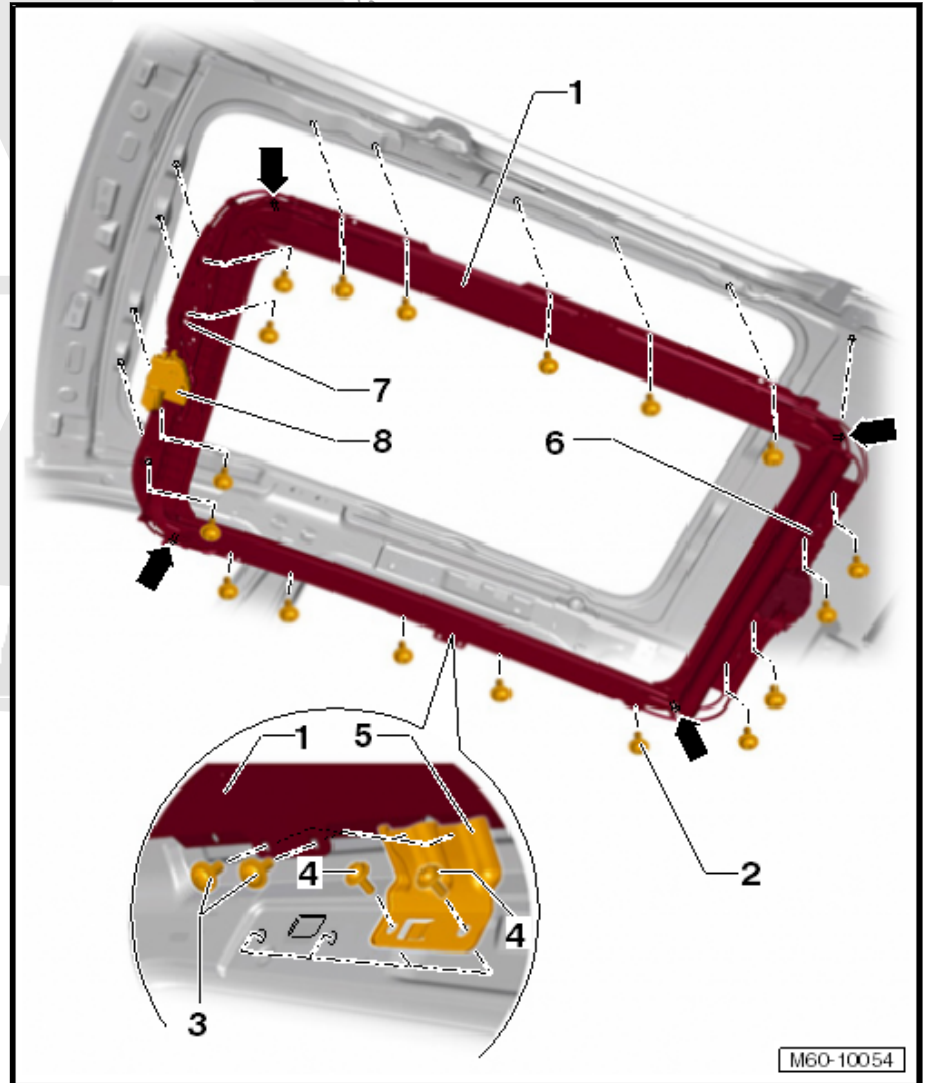
#### Vehicles with screen separator wall:

- Remove the screen separator bracket. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Screen Separator .

#### All vehicles:

- Remove the grab handle (roof) bracket. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Grab Handles .



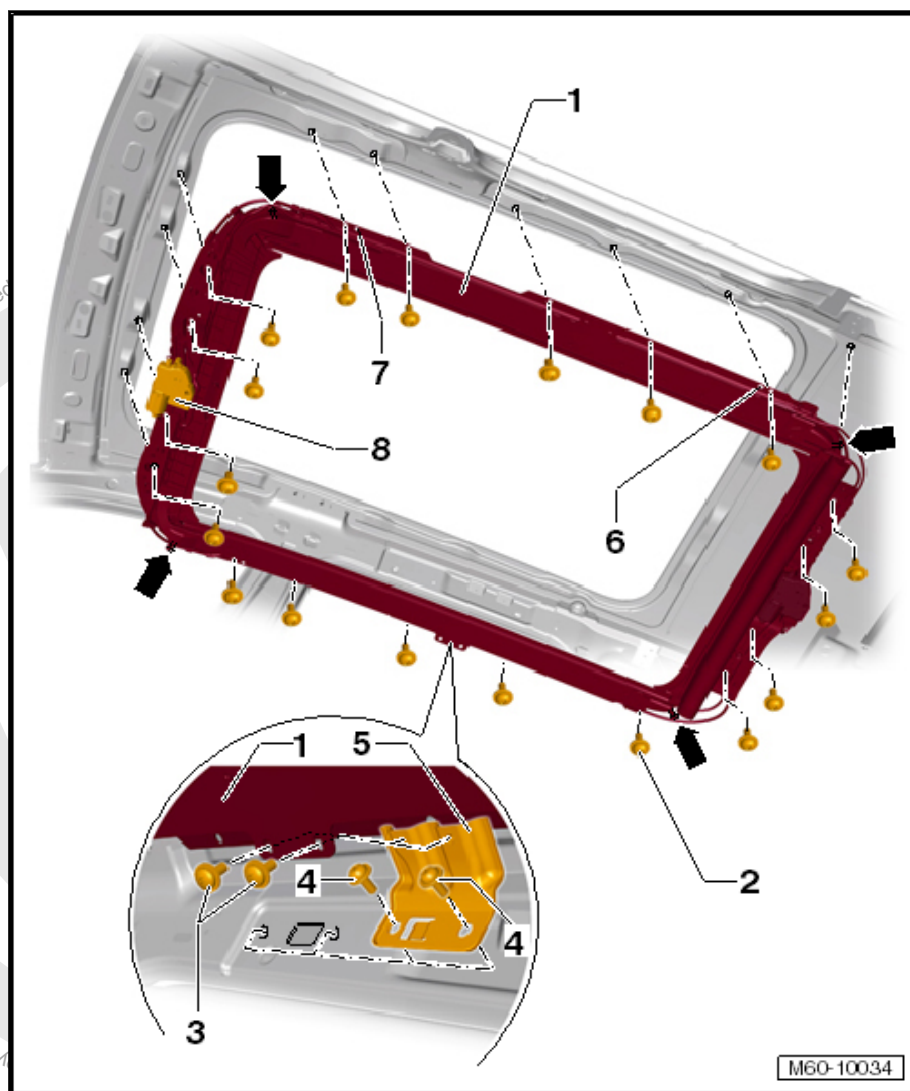


M60-10054

- Disconnect the water drain hoses from the connectors -arrows- in the assembly frame -1-.
- Disconnect the connector leading to the harness from the sliding sunroof motor -8-.
- Remove the bolts -3- and -4- for the bracket -5- and remove the left and right brackets.
- Remove the bolts -2- from the assembly frame -1- and remove the assembly frame from the vehicle with the help of at least one more technician.

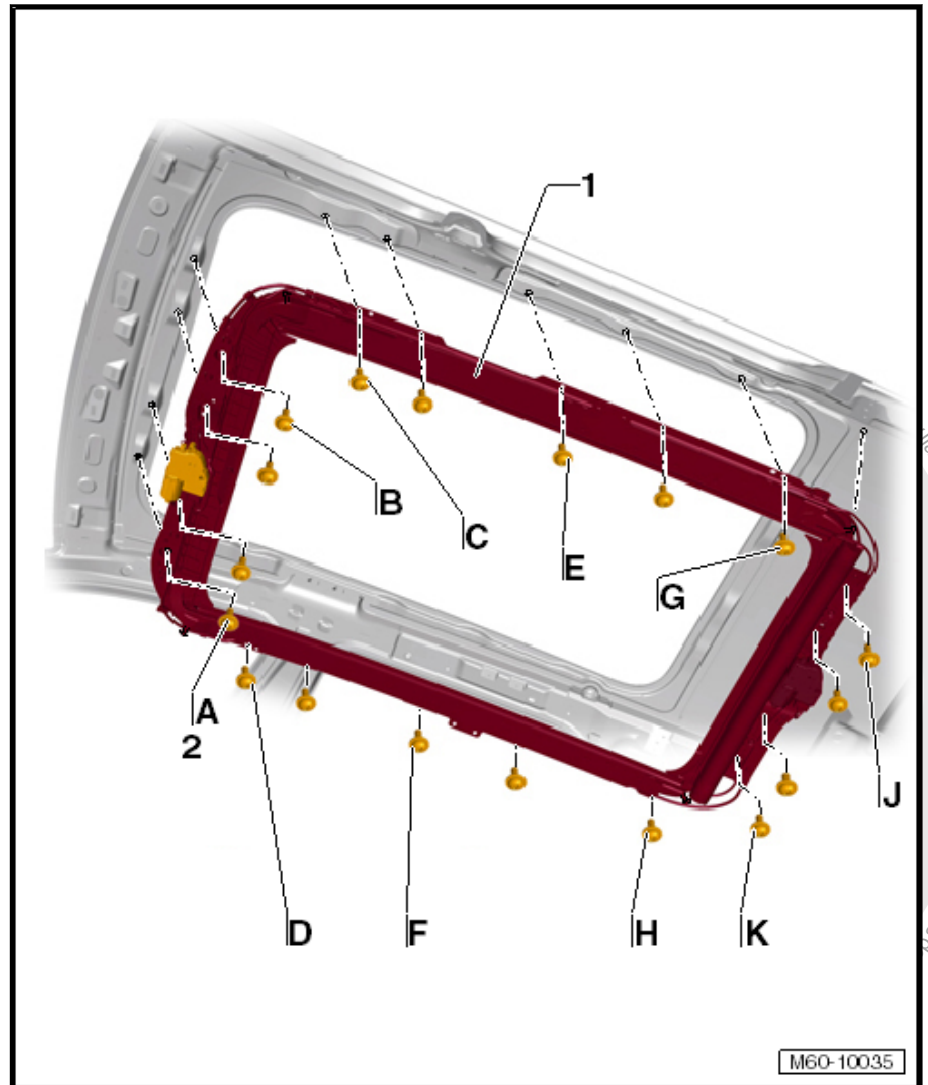
### 1.19.2 Installing





- If necessary, install a new inside seal. Refer to ⇒ [“1.10 Inner Seal, Replacing”](#), page 166 .
- If necessary, install a new outer seal. Refer to ⇒ [“1.9 Outer Seal, Removing and Installing”](#), page 165 .
- Lift the assembly frame -1- into the vehicle with a second technician.
- Align the frame to the roof by installing 2 cylindrical pins (reversed drill bit 8 mm) in the centering holes -6- (oblong hole) and -7-.
- Install the screws -2-, but do not tighten yet.
- Tighten the bolts -3-, tightening specification: 8 Nm.
- Tighten the bolts -4-, tightening specification: 4.5 Nm.





- First tighten the bolts identified with letters -2- in alphabetical order to 8 Nm.
- Tighten the remaining bolts -2- on the frame -1- to 8 Nm.

Perform the rest of the installation in the reverse order of removal.

**Vehicles with screen separator wall:**

- Install the screen separator bracket. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Screen Separator .

**All vehicles:**

- Install the grab handle (roof) bracket. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Grab Handles .
- Install the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim .





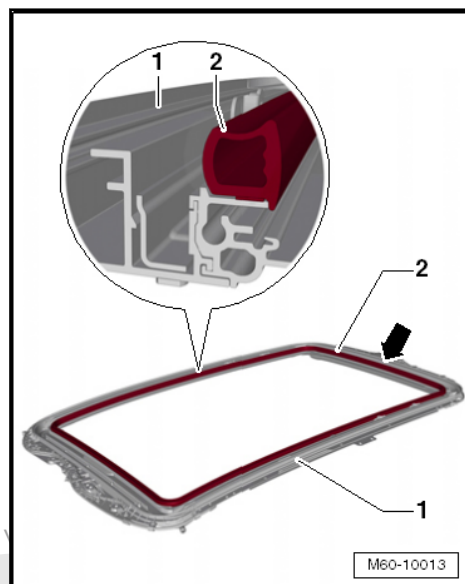
## 1.20 Rear Lid, Removing and Installing

⇒ "1.20.1 Removing", page 186

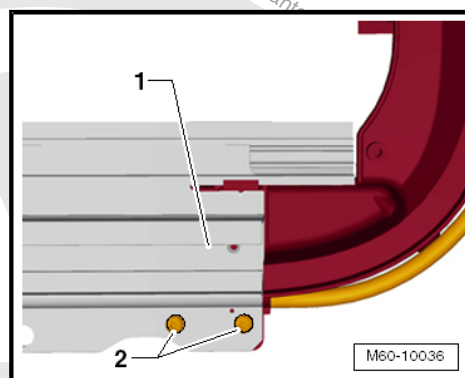
⇒ "1.20.2 Installing", page 187

### 1.20.1 Removing

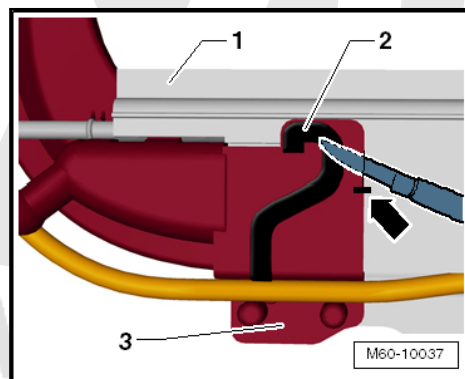
- Remove the assembly frame from the vehicle. Refer to ⇒ "1.19 Assembly Frame, Removing and Installing", page 182 .
- Remove the inner seal -2- from the assembly frame -1-.
- Remove the sun shade. Refer to ⇒ "1.16 Sun Shade, Removing and Installing", page 172 .
- Loosen the wiring harness from the rear lid.



- Remove the bolts -2- from the guide rail -1-.



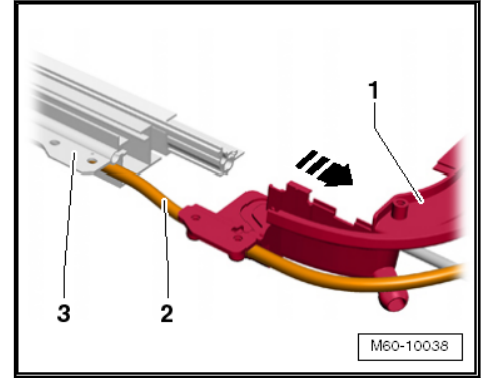
- Mark the location -arrow- on the rear lid -3- for later assembly.
- Cut the bonded joint -2- between the guide rail -1- and the rear lid -3- using a knife.





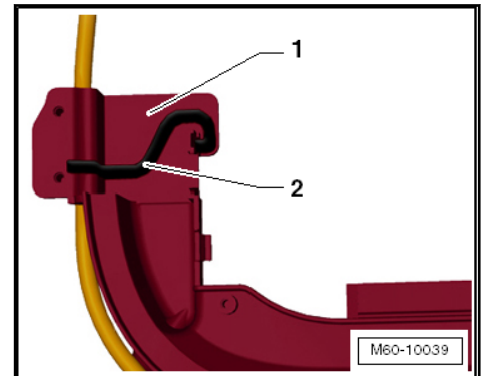


- Pull the complete rear lid -1- together with the drain tubes -2- in -the direction of the arrow- from the guide rails -3- .

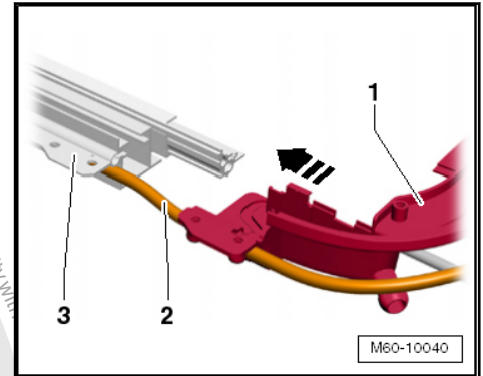


## 1.20.2 Installing

- Remove any adhesive residue using Adhesive Strip Remover - VAS 6349- .
- Clean the adhesive surfaces on the rear section and the guide rails with cleaning solution -D 009 401 04- .
- Press a Butyl Adhesive Sealing Cord - AKD 497 010 04 R10- -2- with a 3.5 mm diameter into the adhesive channel on the rear section -1- as shown.



- Pull the complete rear lid -1- together with the drain tubes -2- in -the direction of the arrow- from the guide rails -3- .

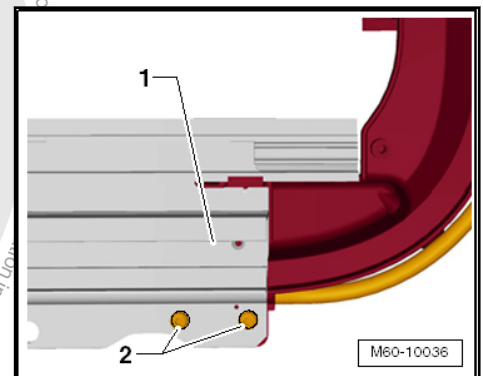


- Tighten the bolts -2- on the guide rail -1- to 2 Nm.



### Note

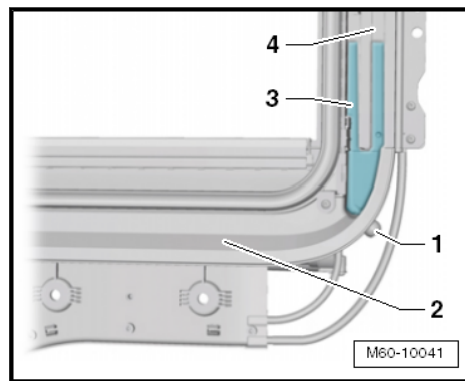
*Check the assembly frame for leaks before installing.*







- Seal the water drain hole -1-.
- Fill the area -3- between the rear lid -2- and the guide rails -4- with water.
- Wait at least 5 minutes and then check for leaks.
- Seal any leaks with Butyl Adhesive Sealing Cord - AKD 497 010 04 R10- .
- Install the sun shade. Refer to ⇒ [“1.16 Sun Shade, Removing and Installing”, page 172](#) .
- Install the sun shade motor. Refer to ⇒ [“1.15 Sun Shade Motor, Removing and Installing”, page 171](#) .
- Install a new inner seal. Refer to ⇒ [“1.10 Inner Seal, Replacing”, page 166](#) .
- Install the assembly frame. Refer to ⇒ [“1.19.2 Installing”, page 183](#) .
- After completing all the work, perform a panorama sunroof adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .



## 1.21 Motor Support, Removing and Installing

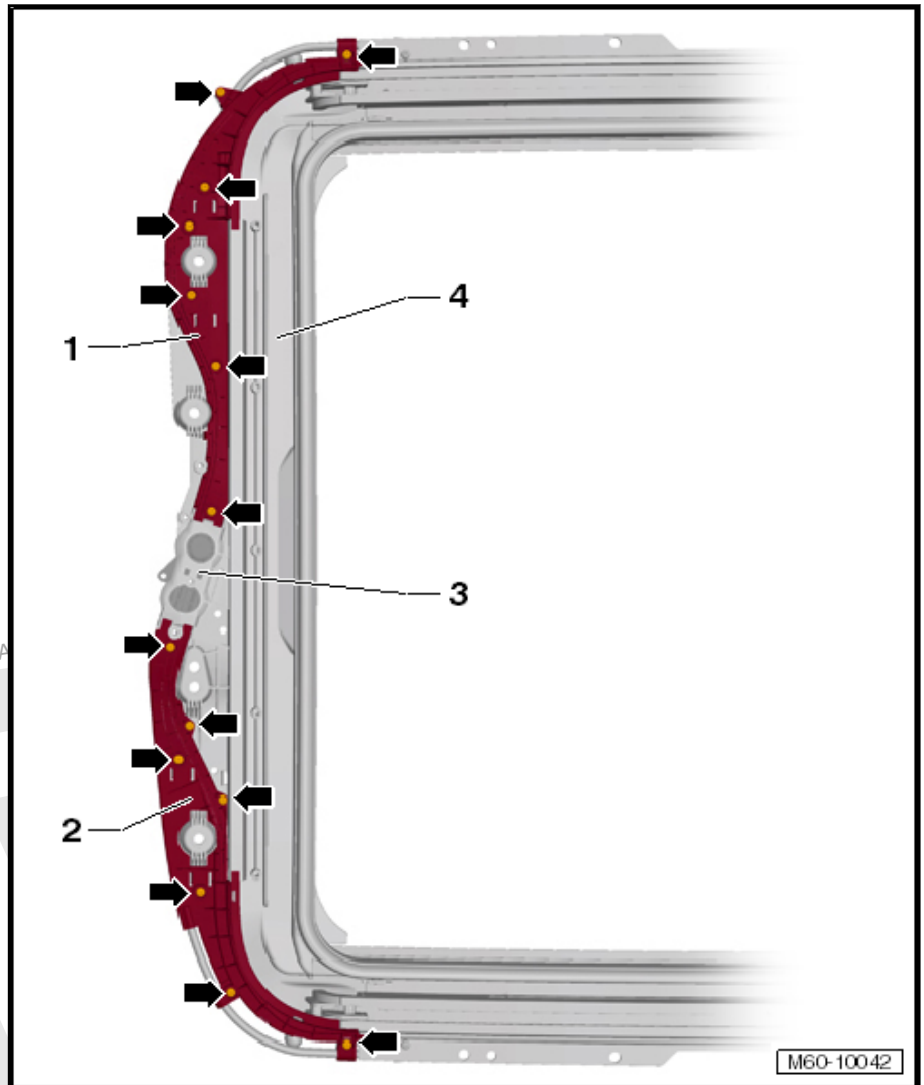
⇒ [“1.21.1 Removing”, page 188](#)

⇒ [“1.21.2 Installing”, page 190](#)

### 1.21.1 Removing

- Remove the assembly frame from the vehicle. Refer to ⇒ [“1.19 Assembly Frame, Removing and Installing”, page 182](#) .
- Remove the sunroof motor. Refer to ⇒ [“1.14 Sunroof Motor, Removing and Installing”, page 170](#) .



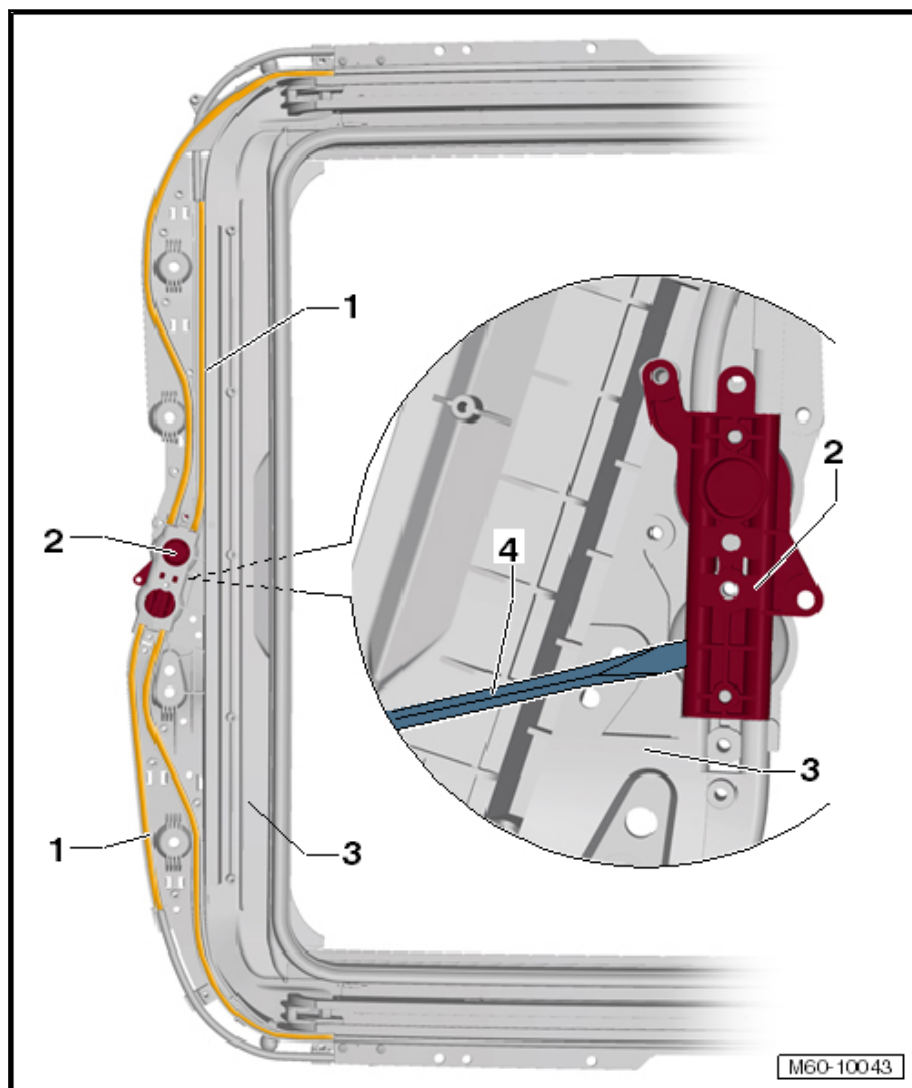


Remove the screws -arrows-.

Remove the cable covers -1 and 2- .

The front motor plate -3- remains on the front panel -4-.

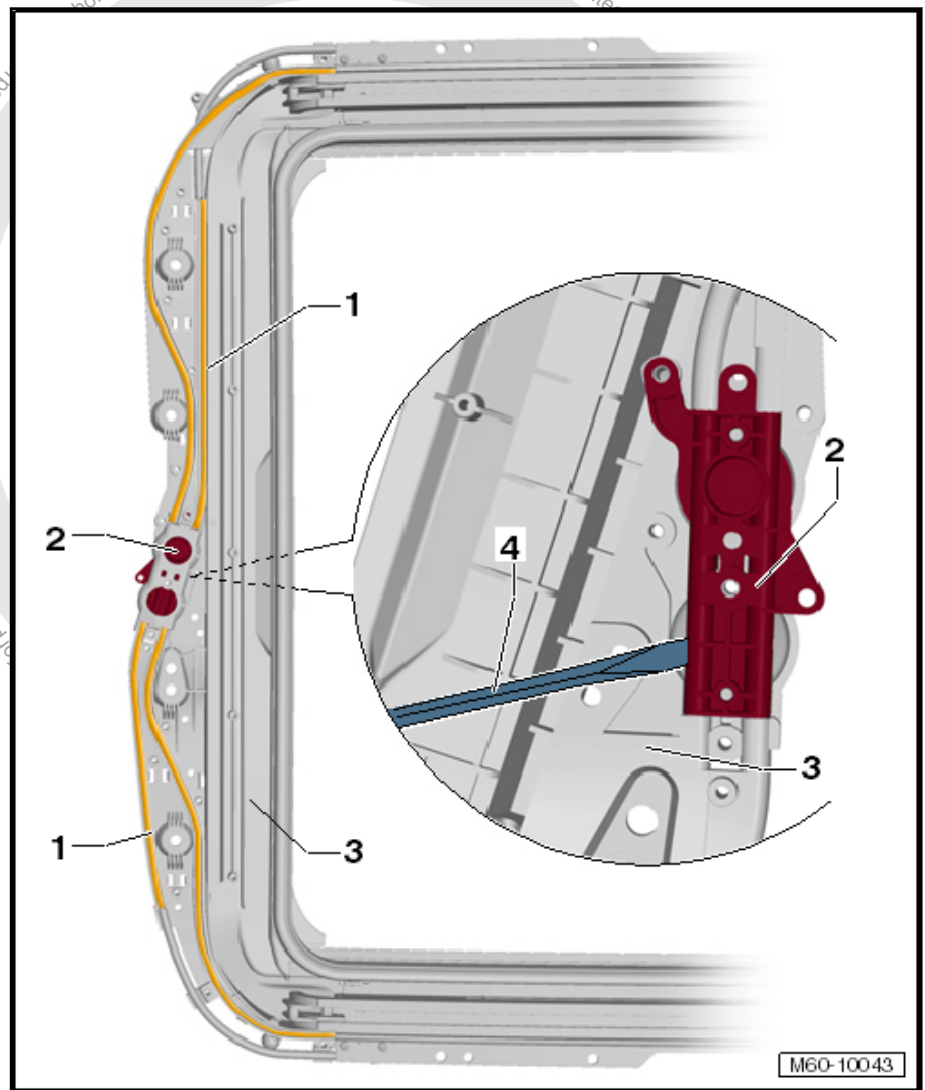




- Remove the cable ends -1- from the motor support -2-.
- Pry the motor plate -2- out of the front section -3- using a suitable screwdriver -4-.

### 1.21.2 Installing





#### Note

- ◆ Insert the engine plate -2- as shown in the front section -3-.
- ◆ Do not lubricate the sun shade slide cables -1- and motor support.

Perform the rest of the installation in the reverse order of removal.

#### Tightening Specifications

Cable cover bolt 2 Nm

- Install the sliding sunroof motor. Refer to ⇒ [“1.14 Sunroof Motor, Removing and Installing”, page 170](#) .
- Install the assembly frame. Refer to ⇒ [“1.19.2 Installing”, page 183](#) .
- After completing all the work, perform a sun shade motor adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .





## 1.22 Front Sunroof Glass Panel Tilt Mechanism and Cable, Removing and Installing

⇒ **"1.22.1 Removing", page 192**

⇒ **"1.22.2 Installing", page 193**

### 1.22.1 Removing

- Remove the front glass panel. Refer to ⇒ **"1.5 Glass Panel, Removing and Installing", page 157**.
- Remove the rear glass panel. Refer to ⇒ **"1.6 Rear Glass Panel, Removing and Installing", page 160**.
- Remove the assembly frame from the vehicle. Refer to ⇒ **"1.19 Assembly Frame, Removing and Installing", page 182**.
- Remove the sunroof motor. Refer to ⇒ **"1.14 Sunroof Motor, Removing and Installing", page 170**.
- Remove the rear lid from the assembly frame. Refer to ⇒ **"1.20 Rear Lid, Removing and Installing", page 186**.

Push the tilt mechanism to the rear after removing the rear lid.

Proceed as follows:



#### Caution

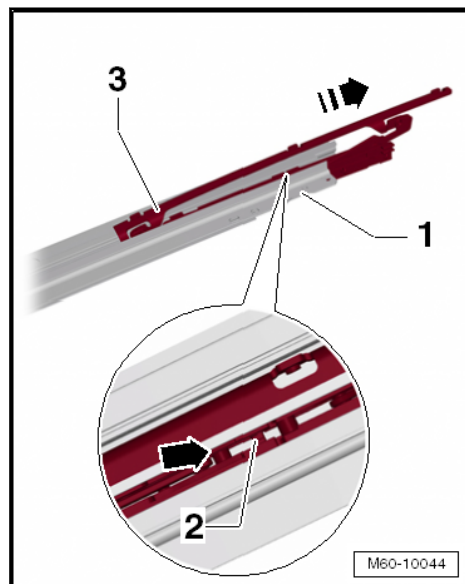
***Before removing the cables, note their position to avoid making a mistake when re-installing.***

***The tilt mechanism may not be pulled or pushed on the guide rail.***

- Press the glass sunroof panel tilting mechanism only on those guiding slot locations -arrow- -2-, and not on the rails -3-.

The tilt mechanism opens when pushed.

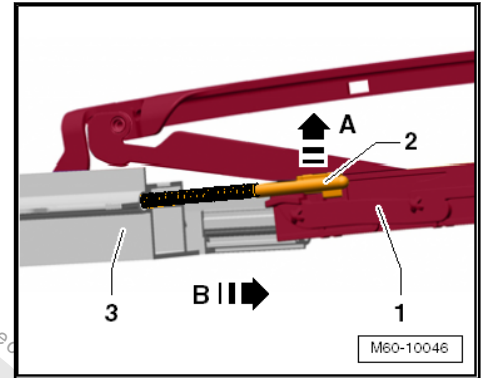
- Slide the tilt mechanism back to the end of the guide rail -1- using a suitable screwdriver.







- Disengage the cable -2- from the slider -1- -arrow A-.
- Remove the slider -1- from the guide rail -3- -arrow B-.
- Remove the cable -2- from the guide rail -3-.

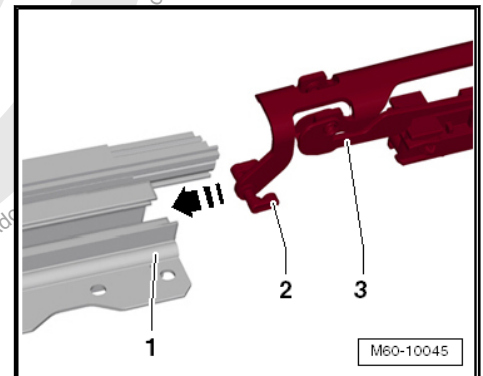


## 1.22.2 Installing



### Note

- ◆ Clean the guide rails only if they are very dirty.
- ◆ Use a cleaner -D 009 401 04- for this.
- ◆ Then lubricate the sliding areas of the guide rails with Lithium Grease - G 052 147 A2- . Refer to ⇒ ["1.23 Maintenance and Care", page 194](#) .
- ◆ Do not lubricate the cables.
- Slide the tilt mechanism -3- into guide rail -1-.
- Make sure the slider -2- points toward the rear when sliding the it into the guide rails -1- .

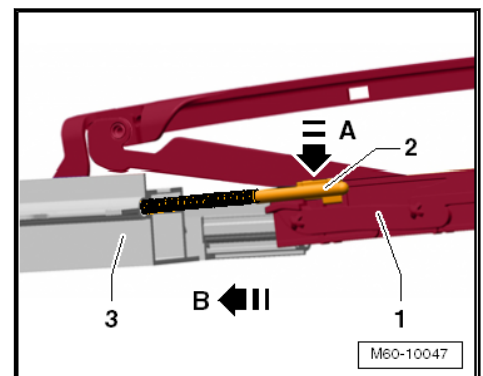


- Slide the cable -2- into the guide rail -3- -arrow B-.
- Engage the cable -2- in the slider -1- -arrow A-.



### Note

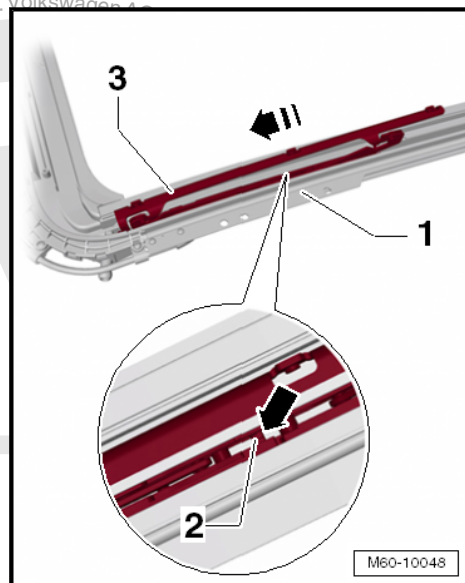
*The tilt mechanism may not be pulled or pushed on the guide rail.*







- Press the tilting mechanism only on those guiding slot locations -arrow- -2-, and not on the rails -3-.
- Push the tilting mechanism on both sides all the way forward until it has completely lowered.
- Install the rear lid on the assembly frame. Refer to ⇒ [“1.20.2 Installing”, page 187](#) .
- Install the sliding sunroof motor. Refer to ⇒ [“1.14.2 Installing”, page 171](#) .
- Install the assembly frame on to the vehicle. Refer to ⇒ [“1.19.2 Installing”, page 183](#) .
- Install the rear glass sunroof panel. Refer to ⇒ [“1.6 Rear Glass Panel, Removing and Installing”, page 160](#) .
- Install the front glass sunroof panel. Refer to ⇒ [“1.5 Glass Panel, Removing and Installing”, page 157](#) .
- After completing all the work, perform a panorama sunroof adaptation. Refer to ⇒ [“1.3 Adaptation Panorama Sliding Sunroof”, page 155](#) .



## 1.23 Maintenance and Care

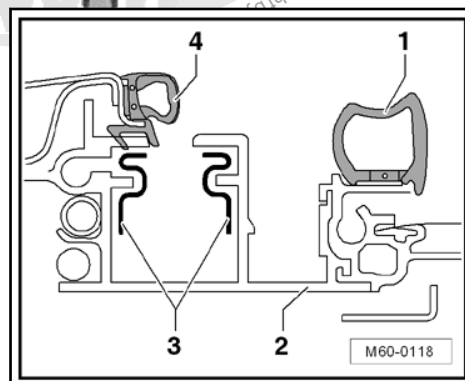
As a rule, there is no regular maintenance required for the panorama sliding sunroof.

If it is necessary to clean because of heavy contamination, only use the cleaner -D 009 401 04- .

Then the sliding areas -3- in the guide rails -2- must be re-lubricated with Lithium Grease - G 052 147 A2- .

The inner seal -1- and the outer seal -4- have a lubricated coating and do not need to be lubricated.

Do not lubricate the cables and the motor support.



## 1.24 Operating without Electricity

⇒ [“1.24.1 Glass Panel”, page 194](#)

⇒ [“1.24.2 Sun Shade”, page 196](#)

### 1.24.1 Glass Panel



#### Note

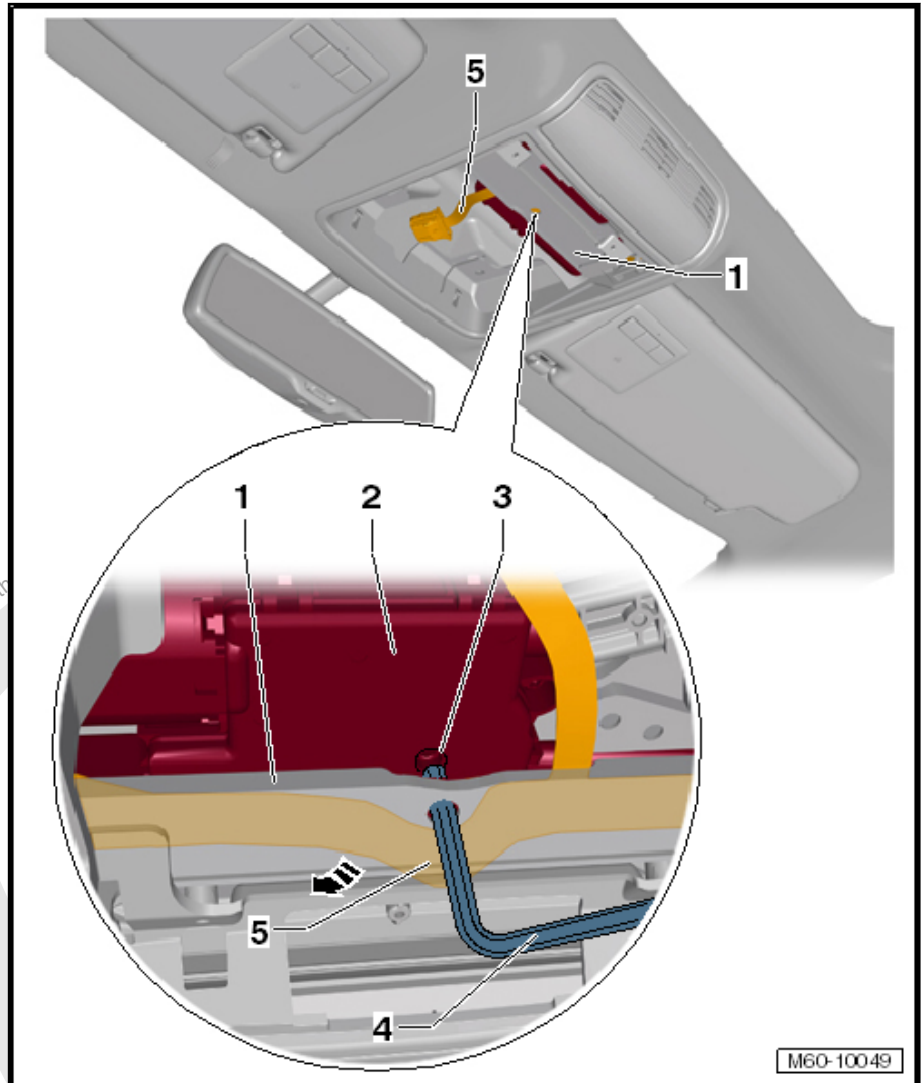
- ◆ *If there is a malfunction in the electrical system, the front sliding sunroof glass panel can be moved manually using a commercially available hex wrench.*
- ◆ *Manually move the front glass sunroof panel far enough until its front corner is flush with the front corner of the rear glass sunroof panel. If the glass panel is moved farther to the rear, the mechanism control cables can disengage.*
- Remove the front light and control unit. Refer to ⇒ Electrical Equipment; Rep. Gr. 96 ; Lights and Switches in Roof Trim Panel .





# **WARNING**

*A flat cable is bonded to the brace in the lamp opening in some versions. The flat cable must be loosened from the brace and pressed to the side for emergency operation. Make sure the flat cable is not damaged.*



- Loosen the flat cable -5-, if applicable, on the brace -1-.
- Move the flat cable far enough to the side -arrow- until it comes through the hole in the brace -1- using a commercially available hex wrench -4-.
- Guide the hex wrench -4- through the hole in the brace -1- and into the screw -3- in the sliding sunroof motor -2-.

If turning by hand, more force will be needed since the motor is not disengaged from the drive.





## 1.24.2 Sun Shade

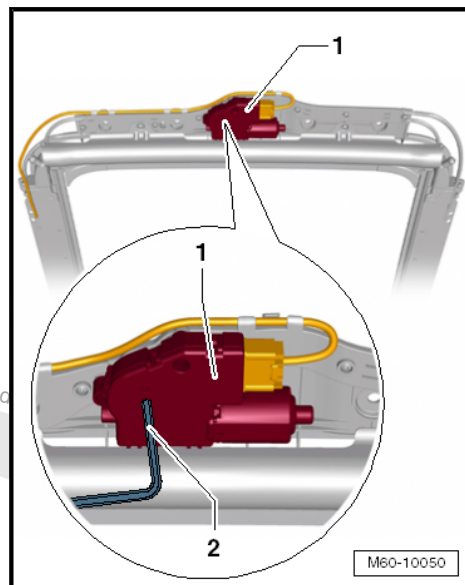


### Note

*If there is a malfunction in the electrical system, the sun shade on the sun shade motor can be moved manually using a commercially available hex wrench.*

- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels .
- Place the hex wrench -2- into the sun shade motor screw -1- .

If turning by hand, more force will be needed since the motor is not disengaged from the drive.



## 1.25 Water Drain Hoses, Cleaning

⇒ ["1.25.1 Front Water Drain Hoses", page 196](#)

⇒ ["1.25.2 Rear Water Drain Hoses", page 197](#)

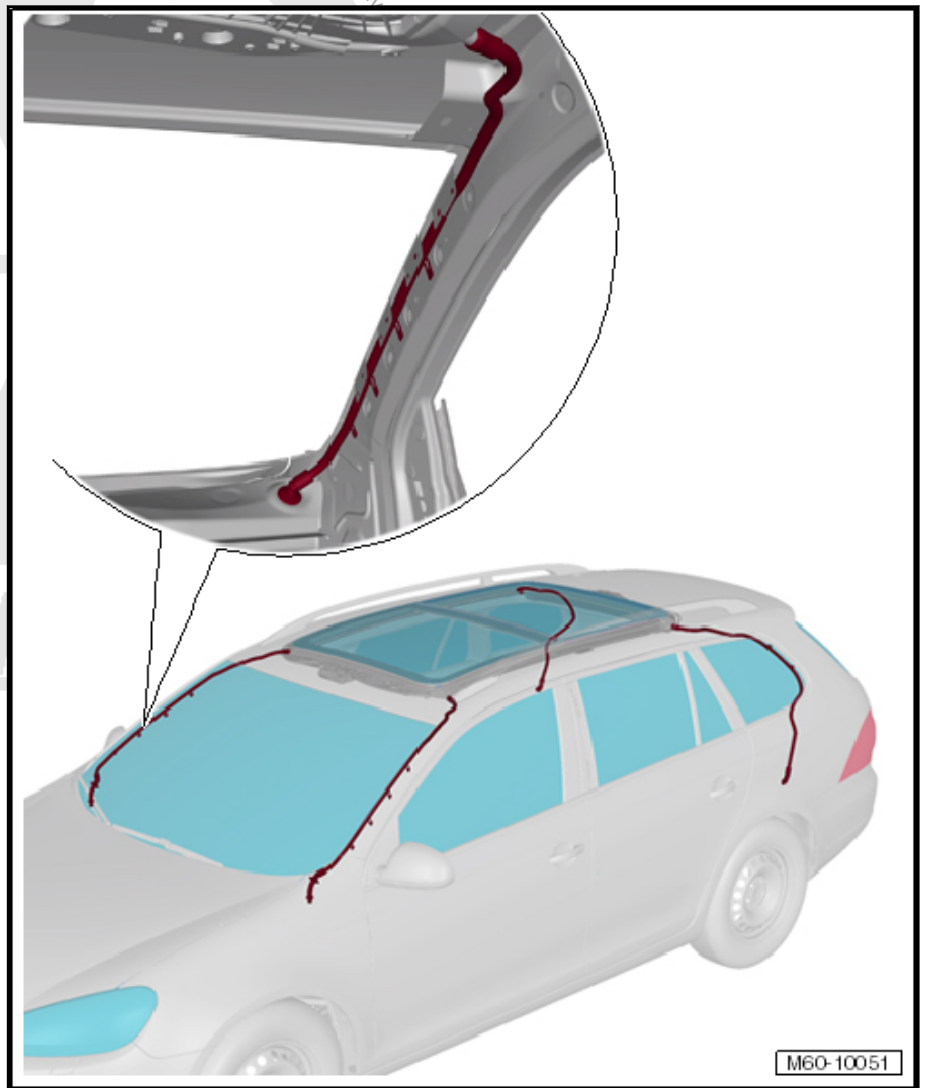


### Note

*For cleaning, an assisting tool is recommended, such as a speedometer drive axle inner cable, approximately 2300 mm long.*

### 1.25.1 Front Water Drain Hoses

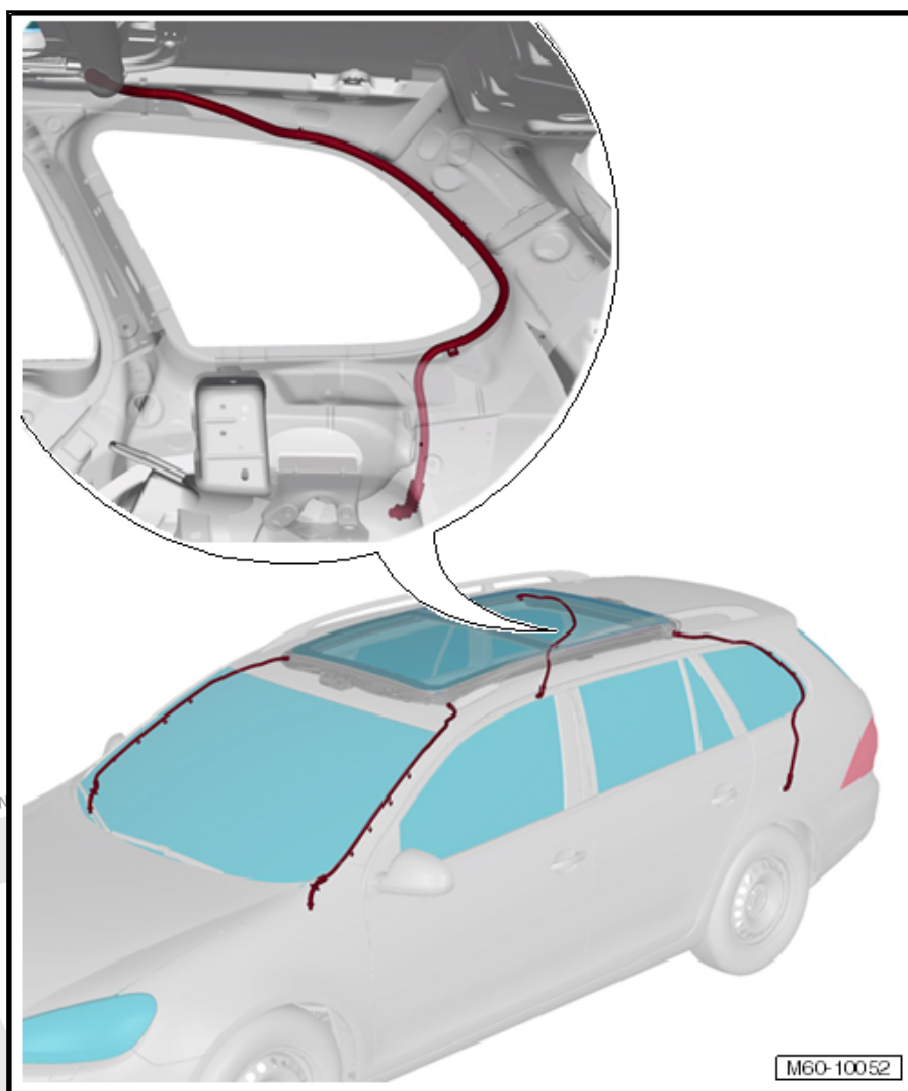




The front water drain hoses run through the A-pillars and end at the bulkhead crossmember. Cleaning takes place from the panorama sliding sunroof opening.

### 1.25.2 Rear Water Drain Hoses

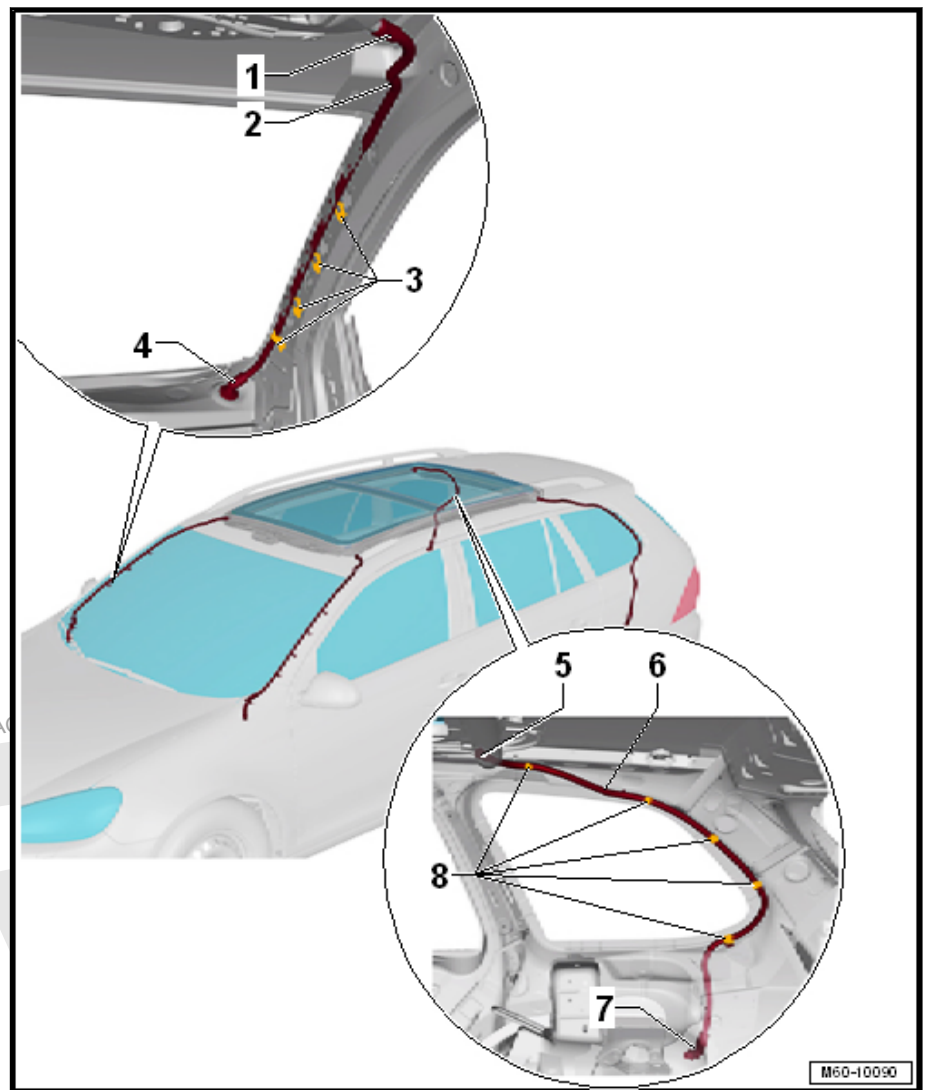




The rear water drain hoses run through the D-pillars and end in the rear wheel housings. Clean starting from the wheel housing and working outward. The wheel housing liner must be removed for this.

## 1.26 Water Drain Hoses, Removing and Installing





### Front Water Drain Hose, Removing

- Remove the upper A-pillar trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Pillar and Side Trim Panels; A-Pillar Trim Panel, Removing and Installing .
- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels; Headliner, Wagon, Removing and Installing .
- Remove the instrument panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Instrument Panel; Instrument Panel, Removing and Installing .
- Pull the front water drain hose -2- from the clips -3- and the drain grommet -4-.
- Remove the front water drain hose -2- from the sunroof frame connection -1- and remove the front water drain hose.

### Rear Water Drain Hose, Removing

- Remove the D-pillar trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Pillar and Side Trim Panels; D-Pillar Trim Panel, Removing and Installing .





- Remove the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Roof Trim Panels; Headliner, Removing and Installing .
- Pull the rear water drain hose -6- from the clips -8- and the drain grommet -7-.
- Remove the rear water drain hose -6- from the sunroof frame connection -5- and remove the rear water drain hose.







## 63 – Bumpers

### 1 Front Bumper Cover

⇒ [“1.1 Tools”, page 201](#)

⇒ [“1.2 Front Bumper Cover, Servicing”, page 201](#)

⇒ [“1.3 Parking Aid Bracket, Installing”, page 201](#)

⇒ [“1.4 Front Bumper Cover”, page 207](#)

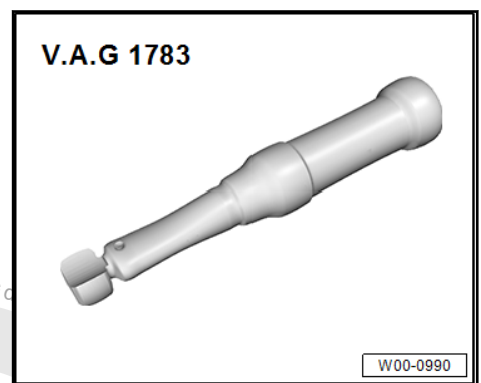
⇒ [“1.5 Front Bumper Carrier”, page 214](#)

⇒ [“1.6 Overview - Side Guide”, page 215](#)

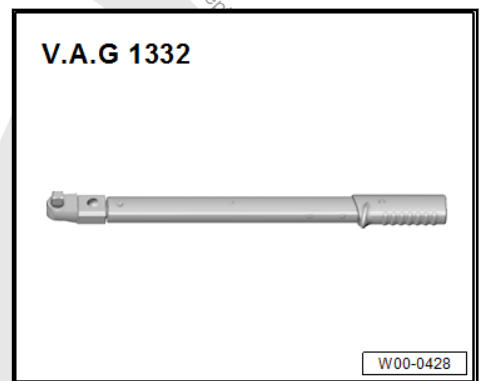
#### 1.1 Tools

Special tools and workshop equipment required

◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



◆ Torque Wrench, 40-200Nm - V.A.G 1332A-



#### 1.2 Front Bumper Cover, Servicing



Note

*If the bumper cover is damaged, first determine if it is possible to repair the plastic before installing a new cover.*

Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Plastic Repair Methods for the description.

#### 1.3 Parking Aid Bracket, Installing

Special tools and workshop equipment required

◆ PDC Holder Tool Set - VAS 6614B-





- ◆ PDC Holder Tool Set - Securing Device - VAS 6614/8-
- ◆ PDC Holder Tool Set - Screw Hole Punch ø18.4 - VAS 6614/9-



- ◆ Hand Cartridge Gun - VAS 5155-



## Materials

- ◆ Two-Part Plastic Adhesive 1) 2) ⇒ Electronic Parts Catalog (ETKA)
- ◆ Bonding Agent for Plastic ⇒ Electronic Parts Catalog (ETKA)
- ◆ Cleaning Solution ⇒ Electronic Parts Catalog (ETKA)
- ◆ Primer Applicator ⇒ Electronic Parts Catalog (ETKA)

Follow the manufacturer processing instructions supplied in the packaging.

Observe the minimum curing time. Refer to [⇒ page 207](#) .

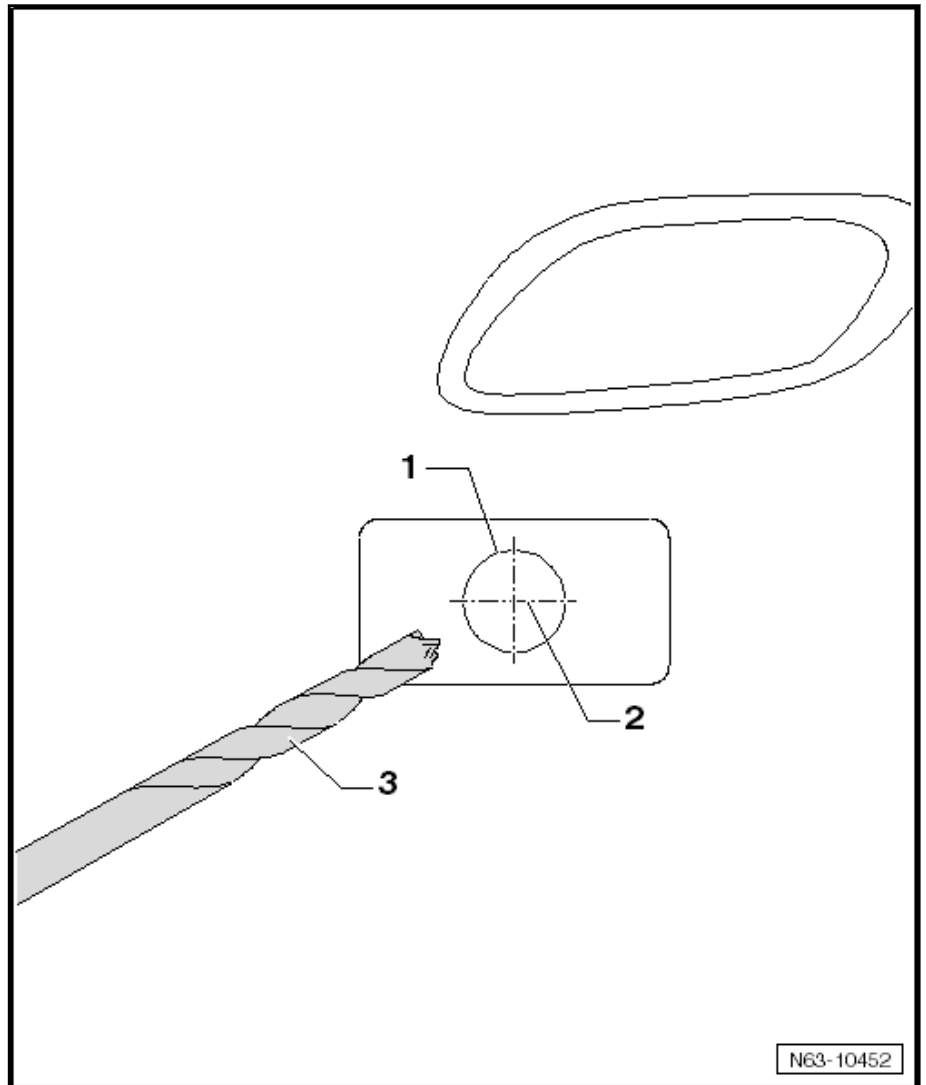
## Bracket, Installing



### Note

*After the bumper cover is painted, install the brackets.*

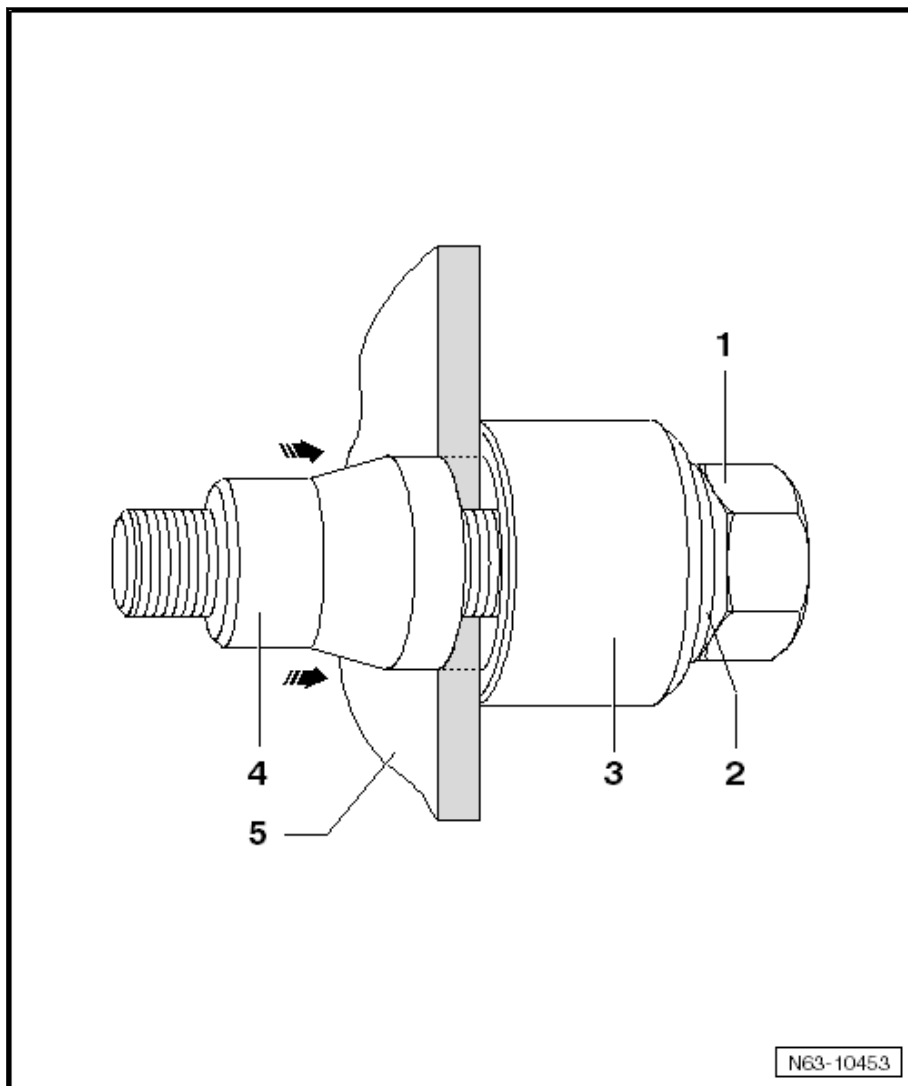




The four markings for the bracket -1- are found on the inside of the bumper cover.

- Determine the central point -2-, if not already present.
- Drill the holes from the inside outward with the drill -3- supplied in the tool kit.





- Attach the PDC Holder Tool Set - Screw Hole Punch  $\varnothing 18.4$  - VAS 6614/9- with the bolt head -1-, the washer -2- and the counterholder -3- on the inside of the bumper cover -5-.
- Position the iron punch -4- almost up to the bumper cover.
- Push the iron punch -4- onto the bumper cover.
- Tighten the hole stamper -1-.

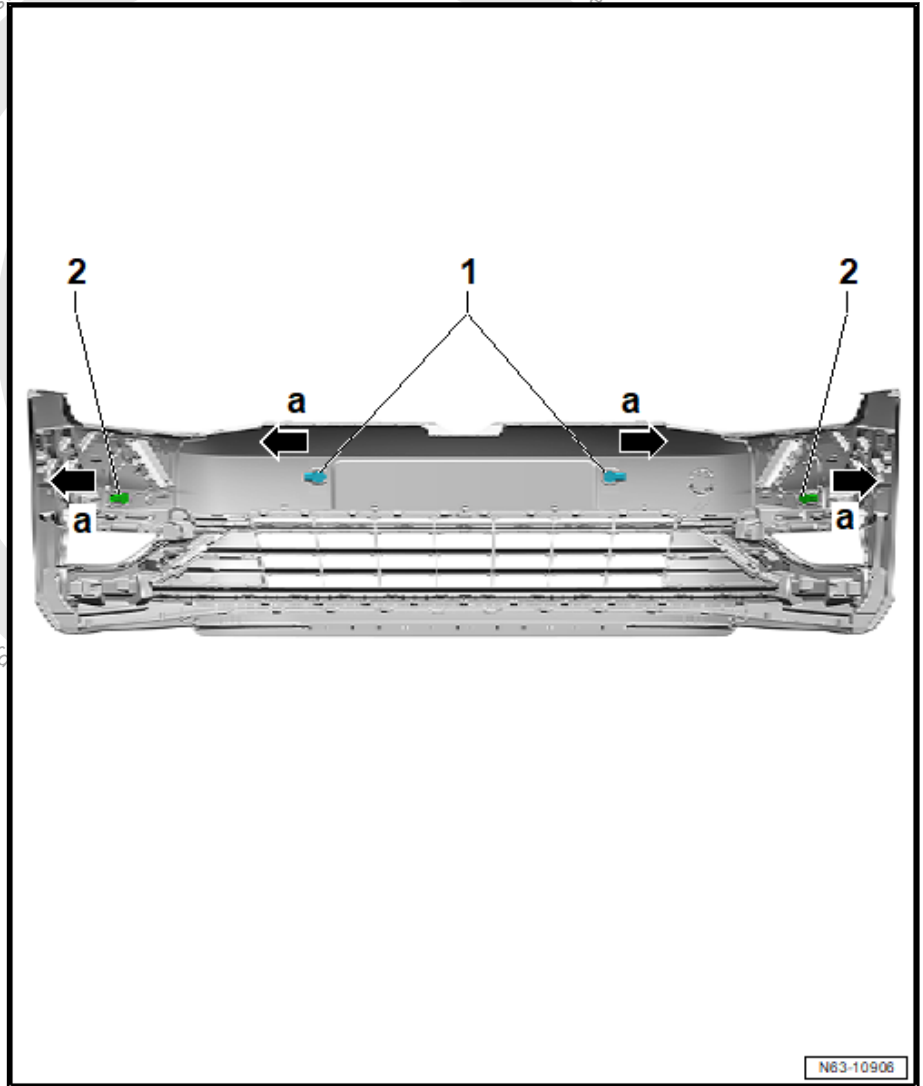


**Note**

*The iron punch -4- must not rotate on the bumper cover paint.*

- By turning at the bolt head -1-, the iron punch -4- is pulled through the bumper cover material -5- -arrows-.
- Remove the hole stamper and stamp the next holes.
- Thoroughly clean the bumper cover and bracket with cleaning solution.





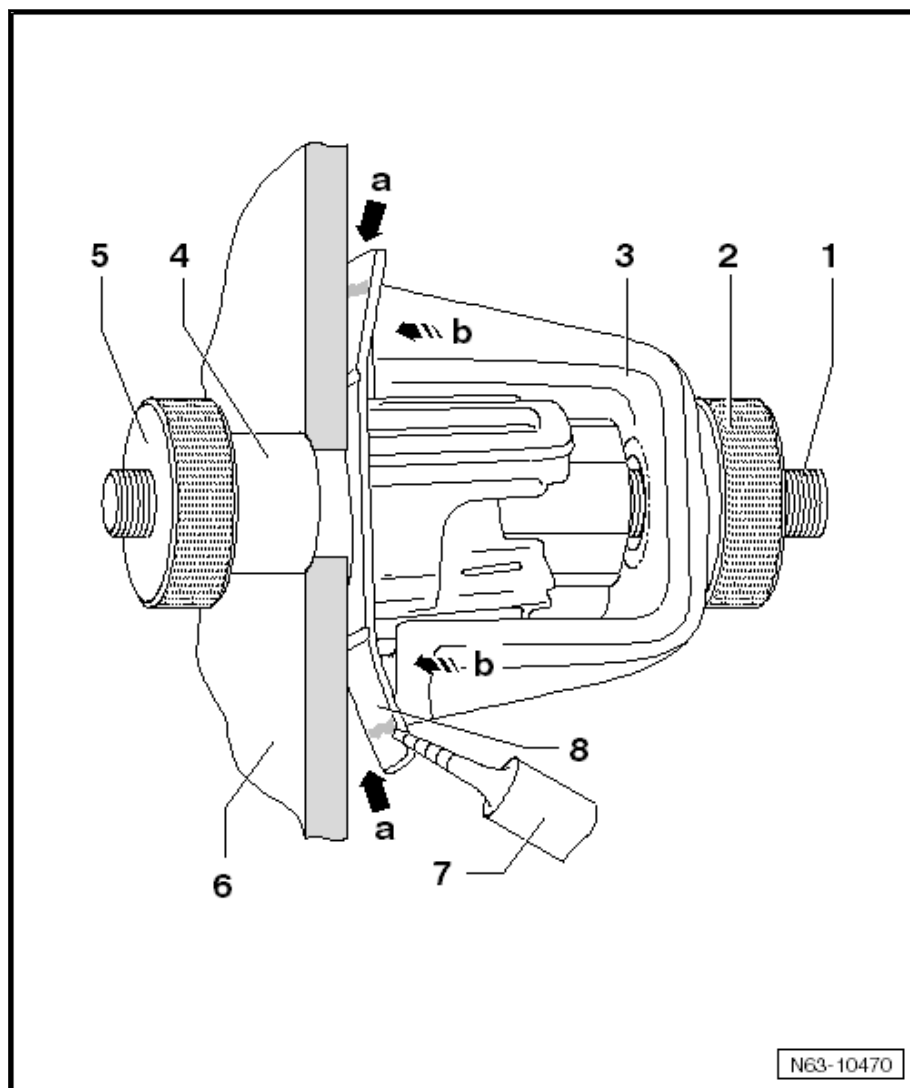
- Pay attention to the orientation of the bracket according to the alignment of the sensors -arrows-.
- Pay attention the to the orientation of the sensors in the illustration.
- The connections on the inner sensors -1- and the outer sensors -2- are aligned toward the outside -a arrows-



**Note**

*Approximately 1 cm of adhesive from the tip should not be applied.*





- Lightly sand the inside of the bumper cover -6- and thoroughly clean it.
- Very thinly apply the bonding agent for plastic to the bumper cover and bracket and let it set for 10 minutes.
- Push the bracket of the PDC Holder Tool Set - Securing Device - VAS 6614/8- -8- on the centering drift -1- and push through the bumper cover -6-.
- Slide on the counterholder -4- and lightly tighten the knurled nut -5-.
- Slide on the clamping clip -3- and position the knurled nut -2-, but do not tighten.
- All brackets are prepared up to this step.



#### Note

*The adhesive cannot run up to the bend.*

- Apply the adhesive as shown and tighten the knurled nut -2-.
- After the minimum curing time, remove all centering drifts.





### Minimum Curing Time

Wait 30 minutes for the minimum curing time before performing any additional work on the bumper cover and the brackets.

The bumper cover must stay in place and may not be moved during this time.

## 1.4 Front Bumper Cover

⇒ [“1.4.1 Overview”, page 207](#)

⇒ [“1.4.2 Removing”, page 208](#)

⇒ [“1.4.3 Installing”, page 210](#)

⇒ [“1.4.4 Front Bumper Cover Attachments”, page 211](#)

⇒ [“1.4.5 License Plate Holder, Installing”, page 213](#)



### Note

*Depending on the model version, slight deviations of the front bumper cover must be considered when removing and installing.*

### 1.4.1 Overview







### 1 - Front Bumper Cover

- ☐ PP/EPDM material
- ☐ Removing. Refer to ⇒ ["1.4.2 Removing", page 208](#).
- ☐ Installing. Refer to ⇒ ["1.4.3 Installing", page 210](#).

### 2 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 2 Nm
- ☐ Attached to the lock carrier

### 3 - Bolt

- ☐ Left and right
- ☐ Pointing upward
- ☐ Tightening specification: 2 Nm

### 4 - Bolt

- ☐ Quantity: 4 on each side
- ☐ Tightening specification: 2 Nm
- ☐ Attached to the wheel housing liner

### 5 - Side Marker Lamp

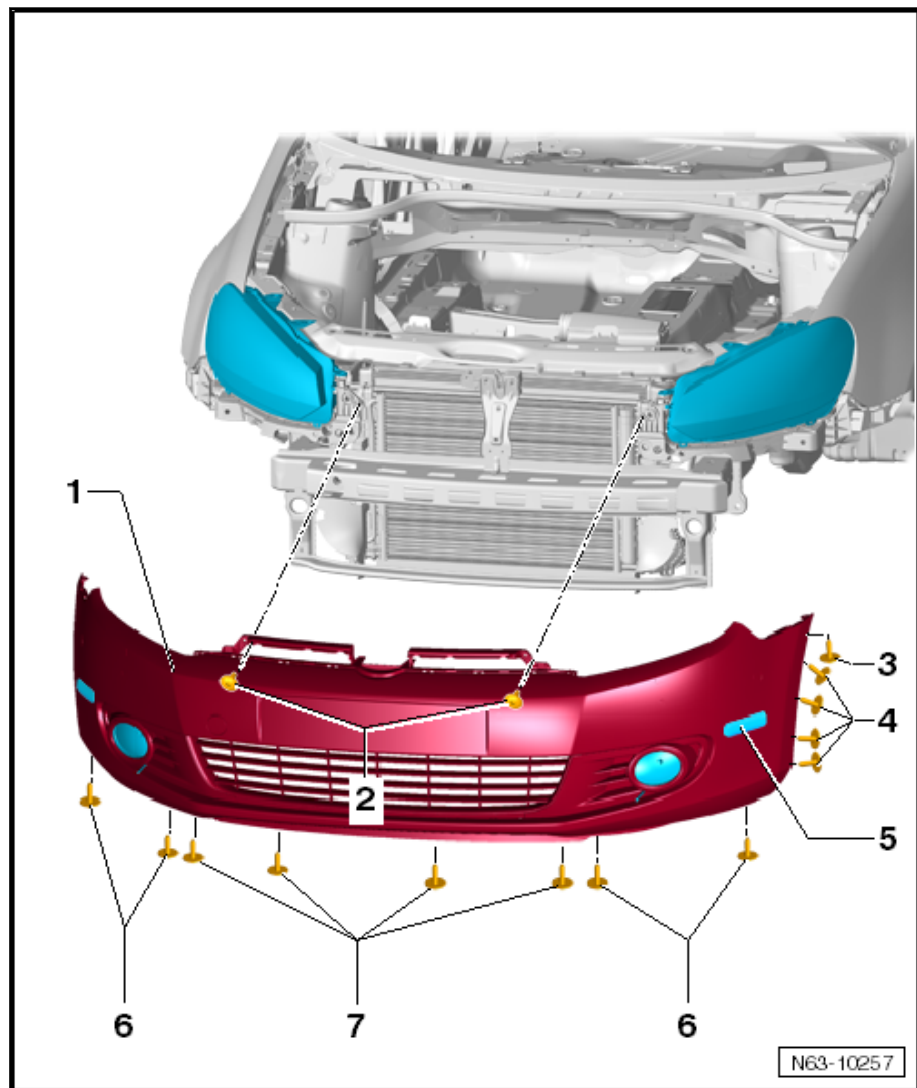
- ☐ Left and right
- ☐ Not for all countries
- ☐ Removing. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Side Marker Lamp.

### 6 - Bolt

- ☐ Quantity: 2 on each side
- ☐ Tightening specification: 2 Nm
- ☐ Attached to the wheel housing liner

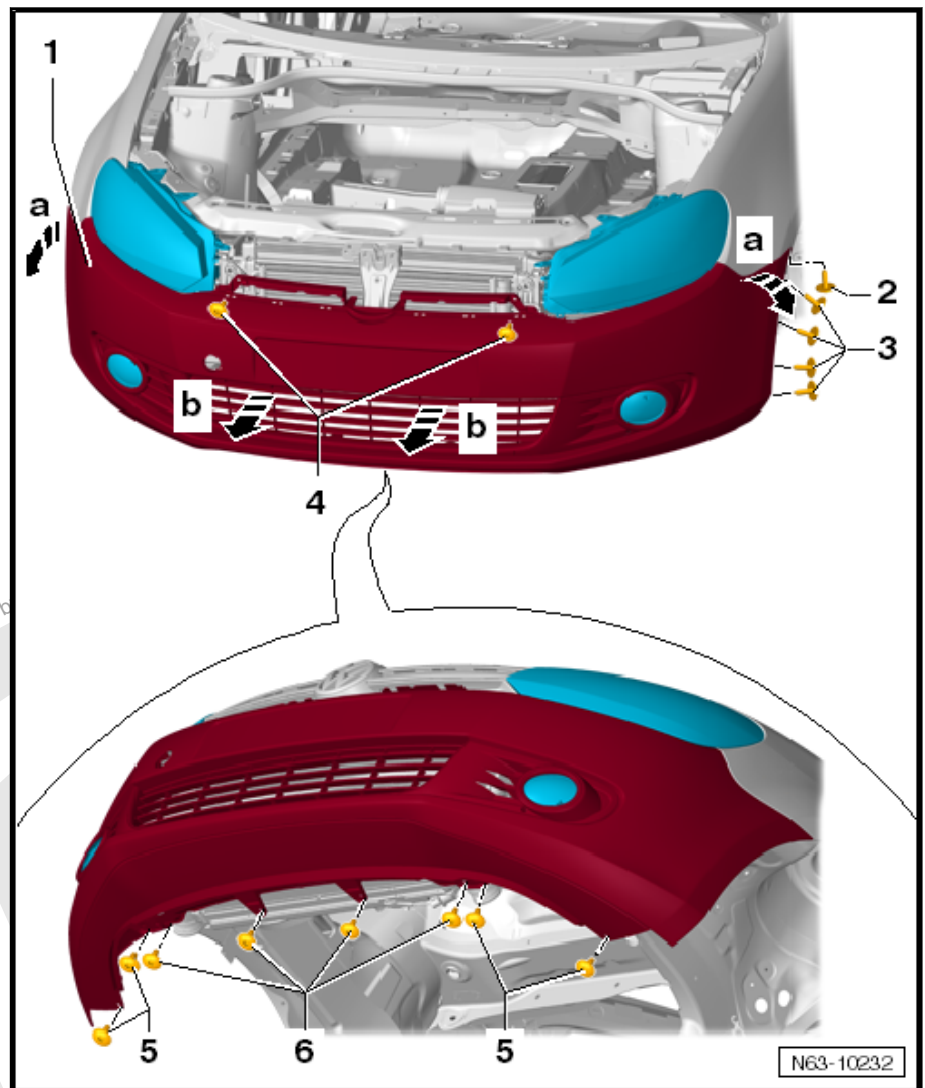
### 7 - Bolt

- ☐ Quantity: 4
- ☐ Tightening specification: 1.5 Nm
- ☐ Attached to the lock carrier



## 1.4.2 Removing





- Remove the radiator grille. Refer to ➤ [“4.2.1 Removing”](#), [page 295](#).
- Remove the bolts -4-.
- Remove the screws -2- (pointing upward) on the left and right sides of the wheel housing.
- Remove the screws -3- from the wheel housing.
- Remove the screws -5- and -6- from underneath.

A second technician is required for the rest of the removal procedure.

- Pull the front bumper cover -1- out of the guides on the left and right sides of the fender -arrows a-.
- Remove the front -1- parallel -arrows b- from the vehicle. A second technician is needed for this.
- Disconnect the connectors from the installed electrical components.

For additional information regarding the parking aid. Refer to ➤ Electrical Equipment; Rep. Gr. 94 ; Exterior Lamps, Bulbs, Switches; Parking Aid .

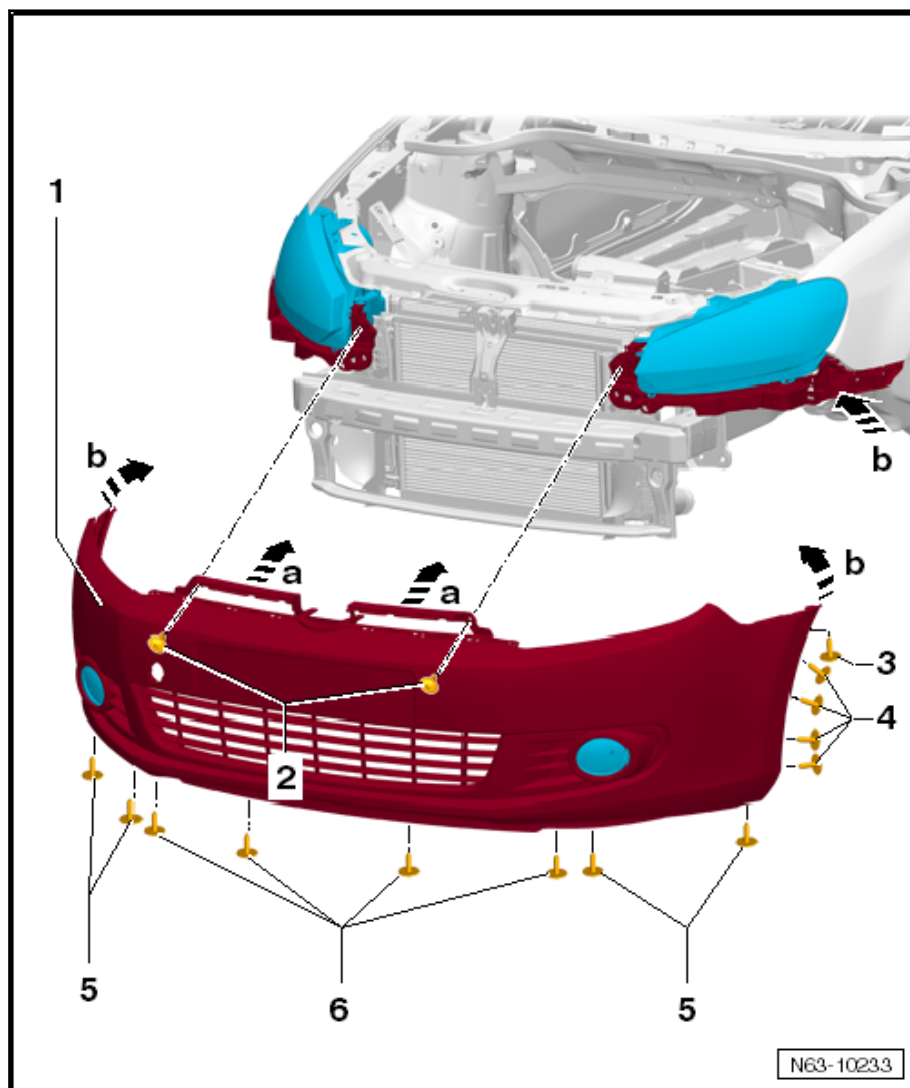




Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Parallel Parking Assistance for additional information regarding parallel parking assistance.

- Disconnect the hose coupling on the washer fluid hose. Refer to ⇒ Electrical Equipment; Rep. Gr. 92 ; Headlamp Washer System .

### 1.4.3 Installing



- Install the front bumper cover -1- parallel -arrows a- onto the lock carrier.
- Press the front bumper cover -1- onto the guides until it latches -arrows b-.



#### Note

*When installing front bumper cover, make sure it is guided on parallel on fender.*

- Pay close attention to the parallel alignment and the gap dimensions. Refer to ⇒ Body Repair; Rep. Gr. 00; Technical Data; Body Panel Gap Dimensions; Body Front .





- Install the screws -2, 3, 4, 5, and 6- and tighten them to the tightening specification. Refer to ⇒ [“1.4.1 Overview”, page 207](#).
- Install the radiator grille. Refer to ⇒ [“4.2.1 Removing”, page 295](#).

Information regarding the parking aid. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lamps, Bulbs, Switches; Parking Aid .

Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Parallel Parking Assistance for additional information regarding parallel parking assistance.

#### **1.4.4 Front Bumper Cover Attachments**





## 1 - Front Bumper Cover

- ☐ PP/EPDM material
- ☐ Removing. Refer to ⇒ ["1.4.2 Removing", page 208](#).
- ☐ Installing. Refer to ⇒ ["1.4.3 Installing", page 210](#).

## 2 - Support

- ☐ For the headlamp washer system on the left side
- ☐ locked inside the front bumper cover -1-
- ☐ Remove only when bumper cover -1- has been removed

## 3 - Spoiler Bracket

- ☐ Remove only when bumper cover -1- has been removed

## 4 - Spoiler

- ☐ Remove only when bumper cover -1- has been removed

## 5 - Center Air Grille

## 6 - Side Air Grille

- ☐ Left
- ☐ Pull forward out of the retainer

## 7 - Side Air Grille

- ☐ Left for the fog lamp
- ☐ Pull forward out of the retainer

## 8 - Decorative Ring

- ☐ Left
- ☐ Depending on the version of the fog lamp

## 9 - Trim Molding

Center air grille depending on the model -5-

## 10 - License Plate Holder

- ☐ There are different sizes for different markets
- ☐ Installing. Refer to ⇒ ["1.4.5 License Plate Holder, Installing", page 213](#).

## 11 - Clips

- ☐ Different quantity for attaching

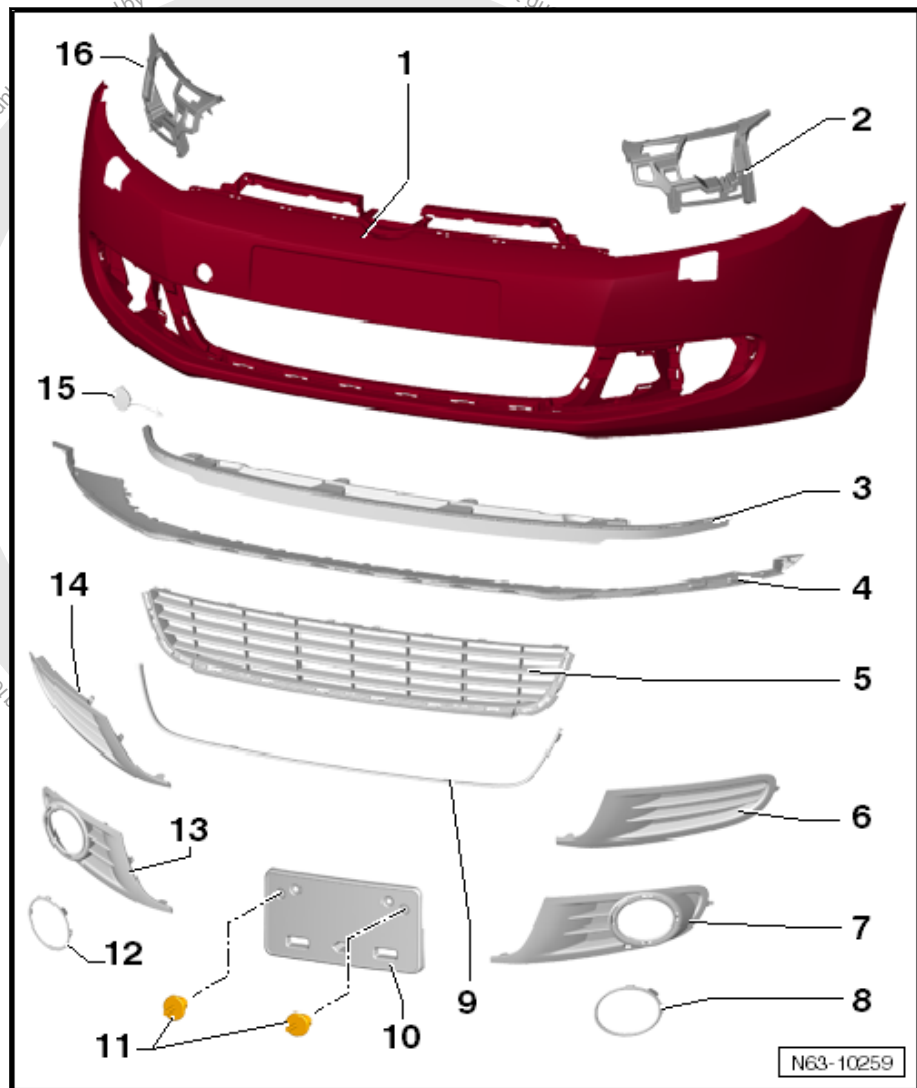
## 12 - Decorative Ring

- ☐ Right
- ☐ Depending on the version of the fog lamp

## 13 - Side Air Grille

- ☐ Right for the fog lamp
- ☐ Pull forward out of the retainer

## 14 - Side Air Grille







- ☐ Right
- ☐ Pull forward out of the retainer

#### 15 - Cover

- ☐ For the towing eye

#### 16 - Support

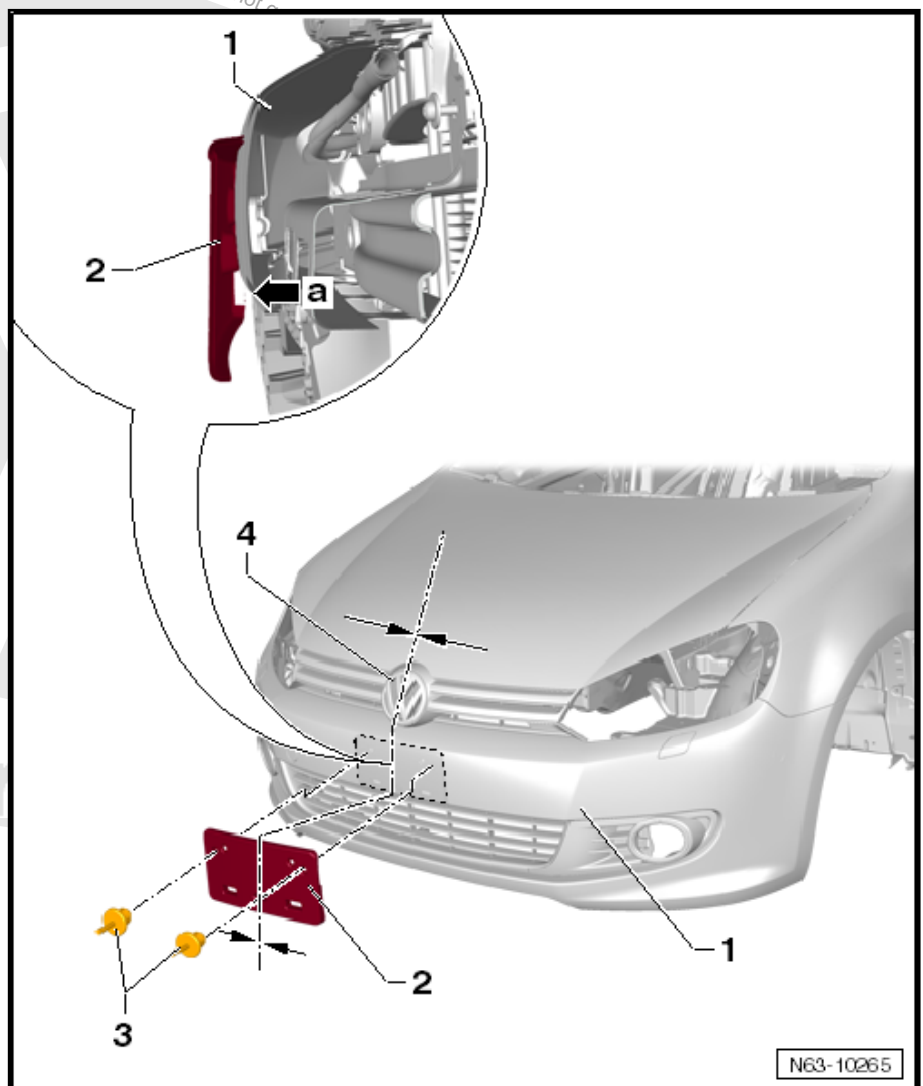
- ☐ For the headlamp washer system on the right side
- ☐ locked inside the front bumper cover -1-.
- ☐ Remove only when bumper cover -1- has been removed

### 1.4.5 License Plate Holder, Installing



#### Note

- ◆ *The license plate holder can have different sizes depending on the market.*
- ◆ *The contour of the bumper determines the height of the license plate holder.*
- ◆ *Drill 12 mm holes.*







### With holes present

- Position the license plate holder -1- on the radiator grille and press in the clips -2-.

### With no holes present

- Align the license plate holder -2- on the bumper -1- with the emblem -4-.
- Set the drill stop depth to 12 mm and drill the holes.
- Position the license plate holder -2- on the radiator grille and press in the clips -3-.

## 1.5 Front Bumper Carrier

⇒ ["1.5.1 Overview", page 214](#)

⇒ ["1.5.2 Overview - North America", page 214](#)

### 1.5.1 Overview

#### 1 - Front Bumper Carrier

#### 2 - Bolt

- ☐ Quantity 3 for both the left and right
- ☐ Tightening specification: 8 Nm.

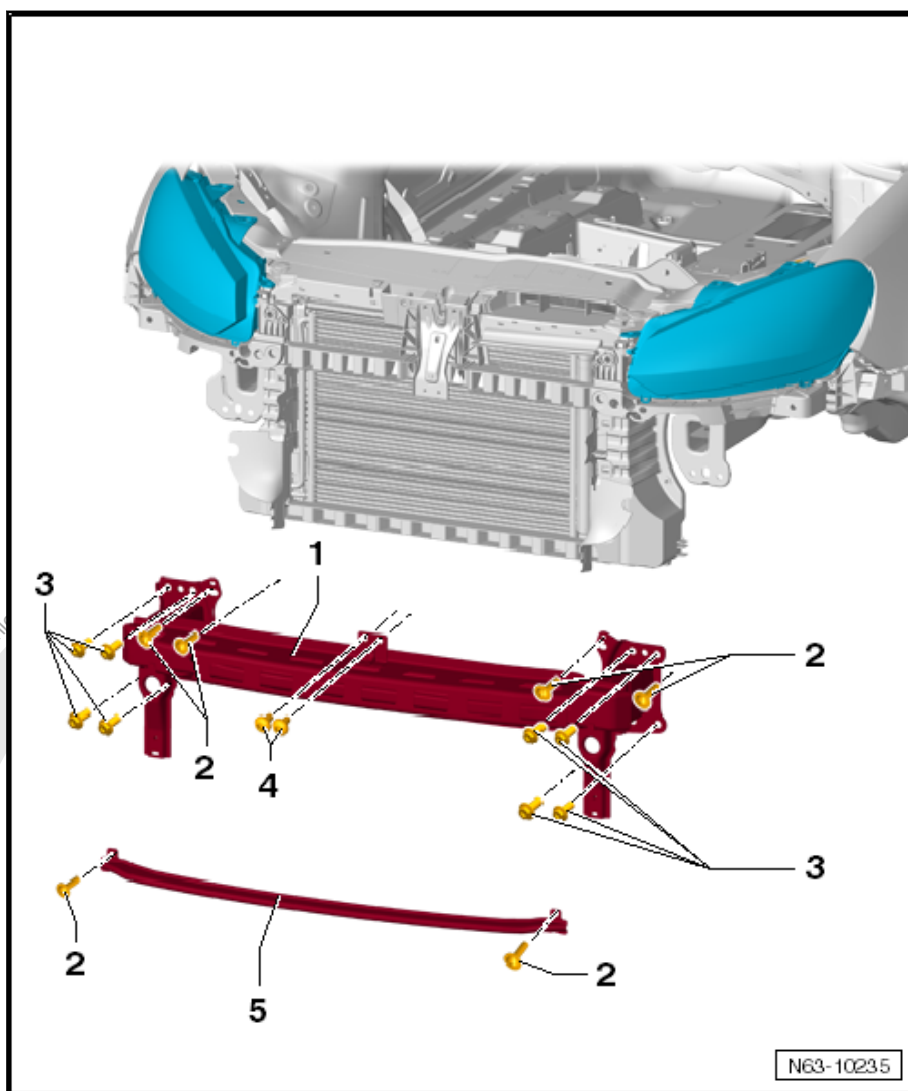
#### 3 - Bolt

- ☐ Quantity 4 for each side
- ☐ Tightening specification: 60 Nm

#### 4 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 8 Nm.

#### 5 - Pedestrian Protection



### 1.5.2 Overview - North America





## 1 - Front Bumper Carrier

### 2 - Bolt

- ☐ Quantity: 4 on each side
- ☐ Tightening specification: 60 Nm

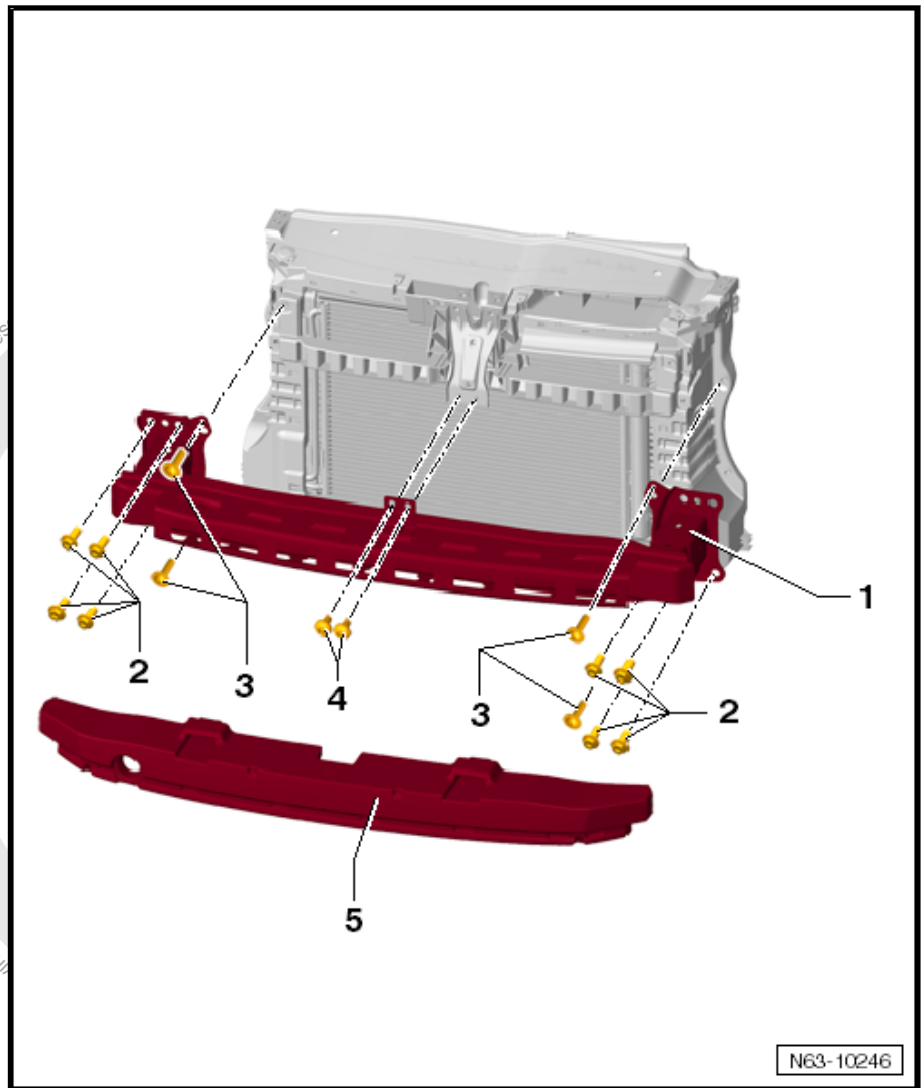
### 3 - Bolt

- ☐ Quantity: 2 on each side
- ☐ Tightening specification: 8 Nm.

### 4 - Bolt

- ☐ Quantity: 2
- ☐ Tightening specification: 8 Nm.

### 5 - Foam Piece



## 1.6 Overview - Side Guide



### Note

*The illustration shows the left side. The right side is identical.*





**1 - Side Guide**

- ☐ Left and right

**2 - Bolt**

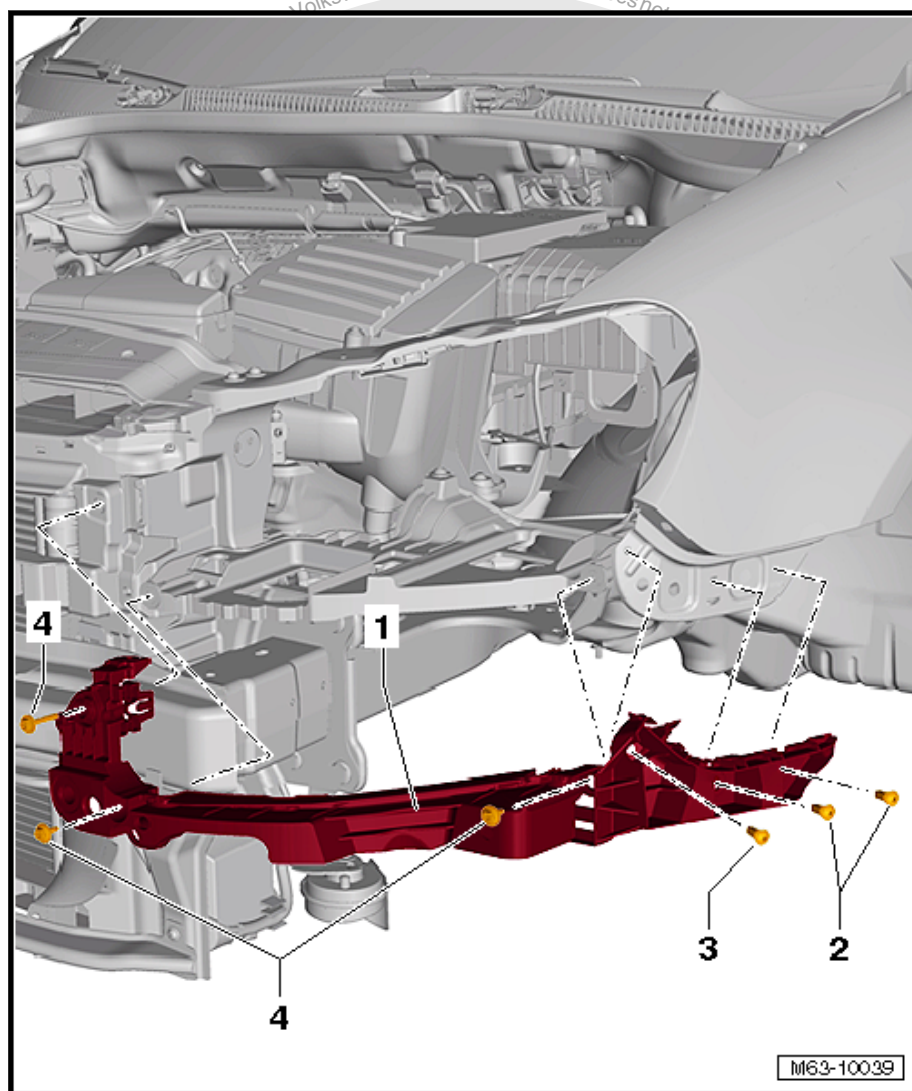
- ☐ Quantity: 2
- ☐ Tightening specification: 2 Nm

**3 - Bolt**

- ☐ Quantity: 1
- ☐ Installed from 06/2010
- ☐ Tightening specification: 2 Nm

**4 - Bolt**

- ☐ Quantity: 2
- ☐ Tightening specification: 5 Nm







## 2 Rear Bumper Cover

⇒ ["2.1 Tools", page 217](#)

⇒ ["2.2 Rear Bumper Cover, Servicing", page 217](#)

⇒ ["2.3 Parking Aid Bracket, Installing", page 217](#)

⇒ ["2.4 Rear Bumper Cover", page 223](#)

⇒ ["2.5 Rear Bumper Cover Substructure", page 227](#)

⇒ ["2.6 Rear Bumper Carrier", page 228](#)

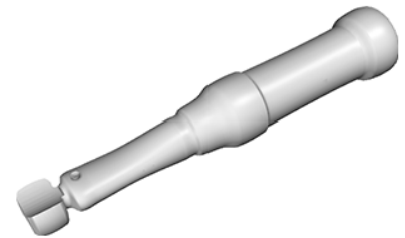
⇒ ["2.7 Overview - Trailer Hitch", page 229](#)

### 2.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-

V.A.G 1783



W00-0990

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-

V.A.G 1331



W00-0427

### 2.2 Rear Bumper Cover, Servicing



Note

*If the rear bumper cover is damaged, first determine if it is possible to repair the plastic before installing a new cover.*

Description under ⇒ General Information; Body Repairs, Body Collision Repair ; Plastic Repair Methods

### 2.3 Parking Aid Bracket, Installing

Special tools and workshop equipment required

- ◆ PDC Holder Tool Set - VAS 6614B-





◆ PDC Holder Tool Set - Attachment Aids - VAS 6614/7-



◆ Hand Cartridge Gun - VAS 5155-



## Materials

- ◆ Two-Part Plastic Adhesive <sup>1</sup> ⇒ Electronic Parts Catalog (ETKA)  
2
- ◆ Plastic Bonding Agent <sup>1</sup> ⇒ Electronic Parts Catalog (ETKA)
- ◆ Cleaning Solution <sup>1</sup> ⇒ Electronic Parts Catalog (ETKA)
- ◆ Primer Applicator ⇒ Electronic Parts Catalog (ETKA)

<sup>1</sup>) Follow the manufacturer instructions provided with the package.

<sup>2</sup>) Observe the minimum curing time. Refer to [⇒ page 223](#) .

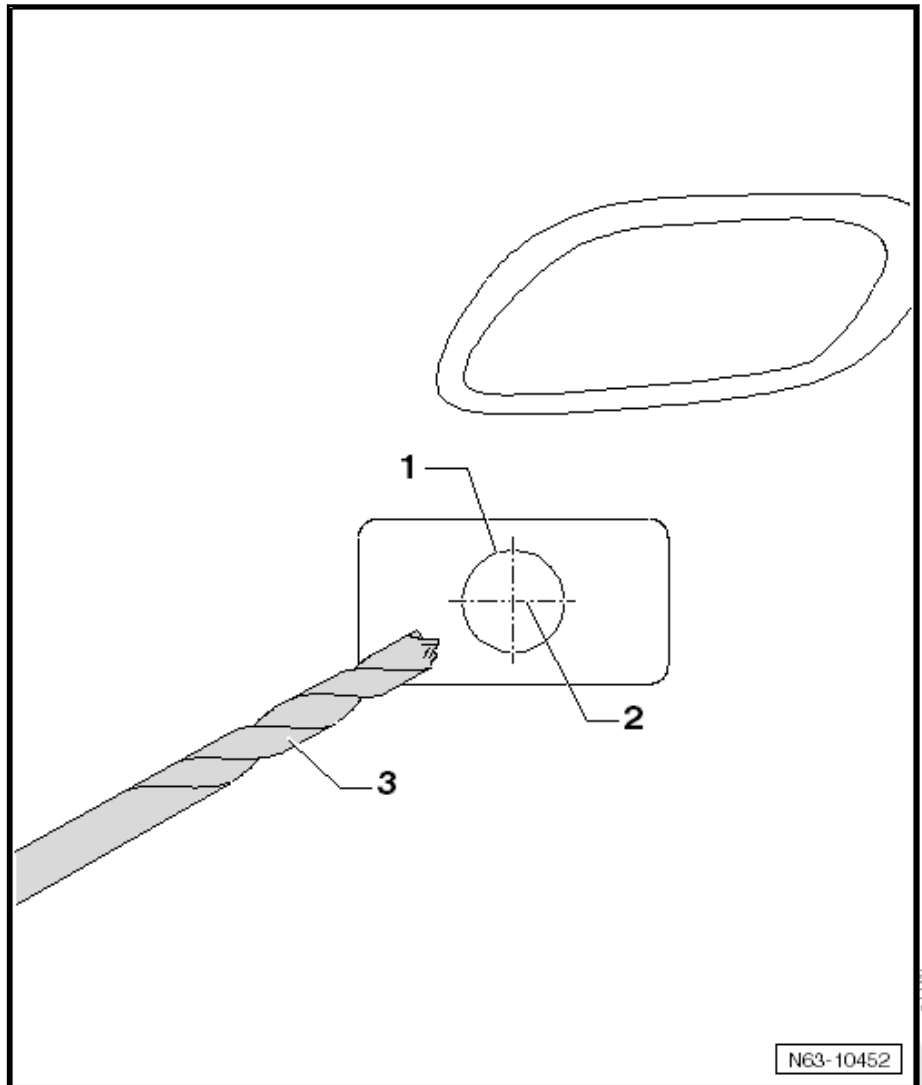
## Bracket, Installing



### Note

*After the bumper cover is painted, install the brackets.*

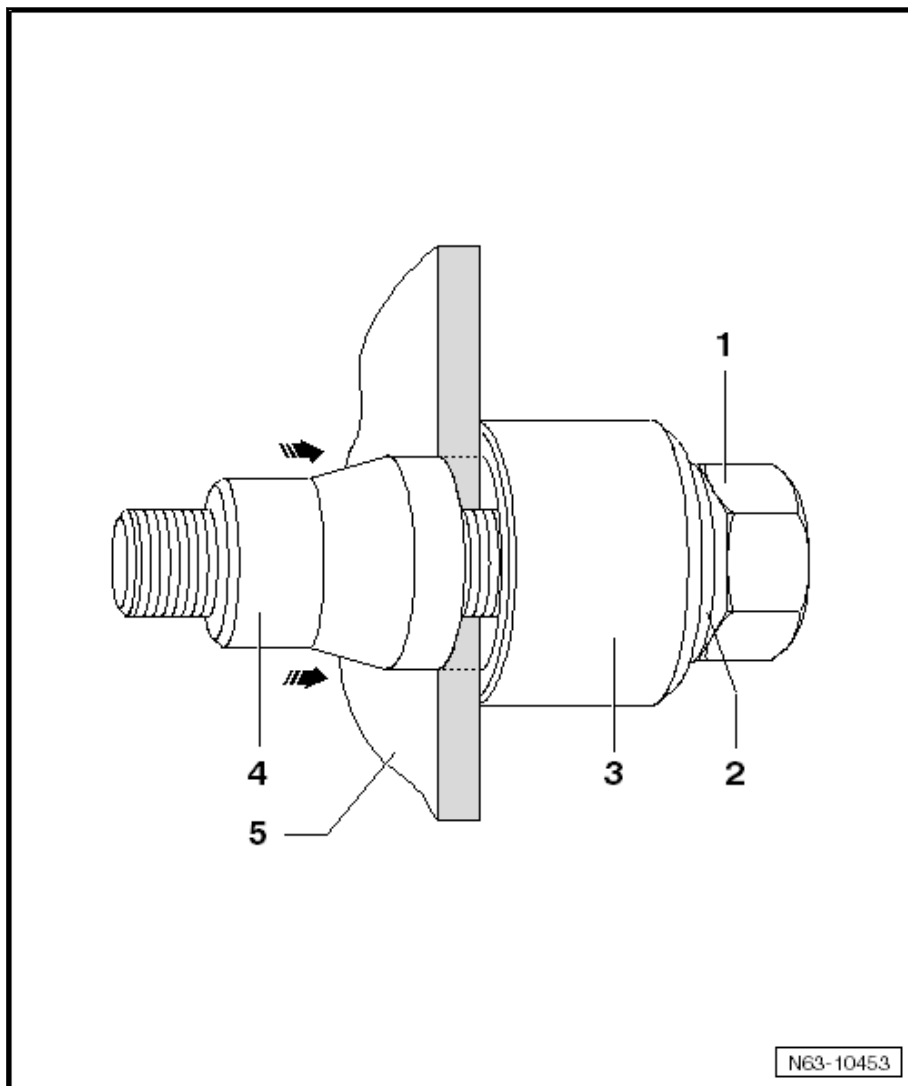




The four markings for the bracket -1- are found on the inside of the bumper cover.

- Determine the central point -2-, if not already present.
- Drill the holes from the inside outward with the drill -3- supplied in the tool kit.





- Attach the Screw-Hole Punch 18.2 VAS 6614/1- with the bolt head -1-, the washer -2- and the counterholder -3- on the inside of the bumper cover -5-.
- Position the iron punch -4- almost up to the bumper cover.
- Push the iron punch -4- onto the bumper cover.
- Tighten the hole stamper -1-.

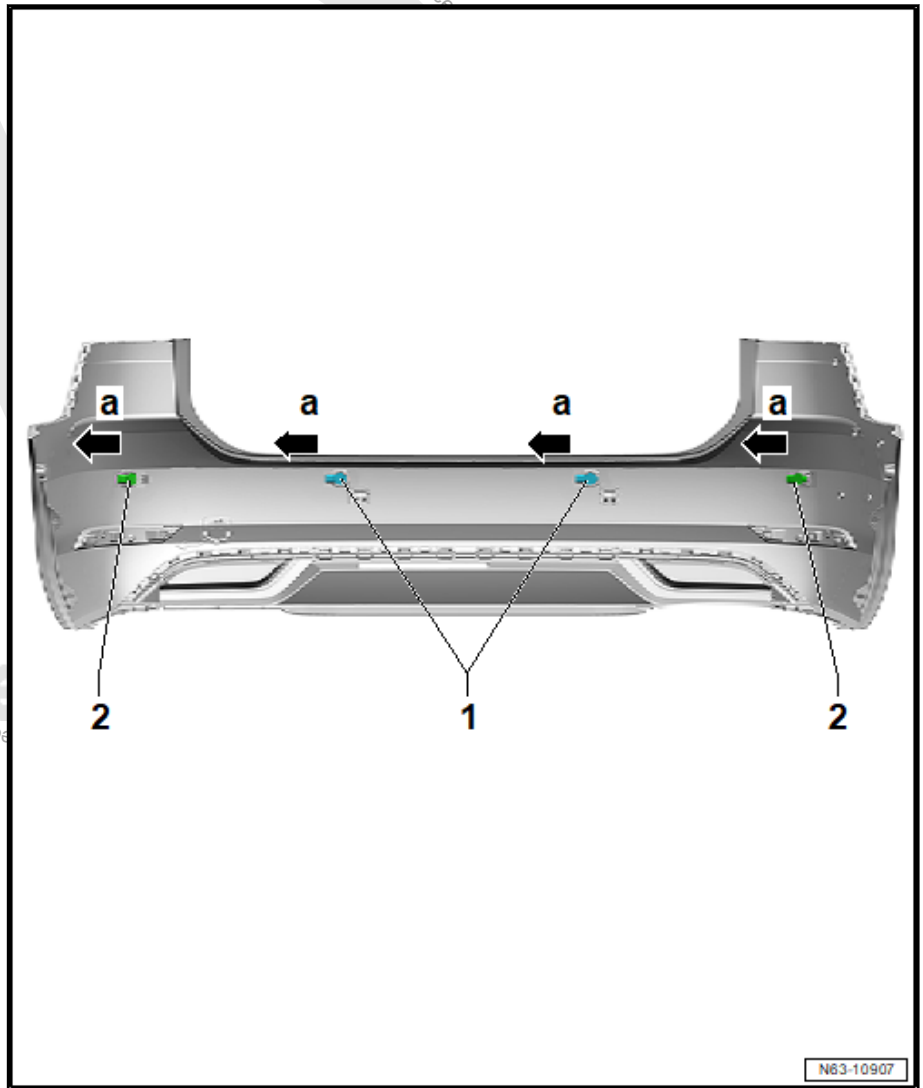


#### Note

*The iron punch -4- must not rotate on the bumper cover paint.*

- By turning at the bolt head -1-, the iron punch -4- is pulled through the bumper cover material -5- -arrows-.
- Remove the hole stamper and stamp the next holes.
- Thoroughly clean the bumper cover and bracket with cleaning solution.





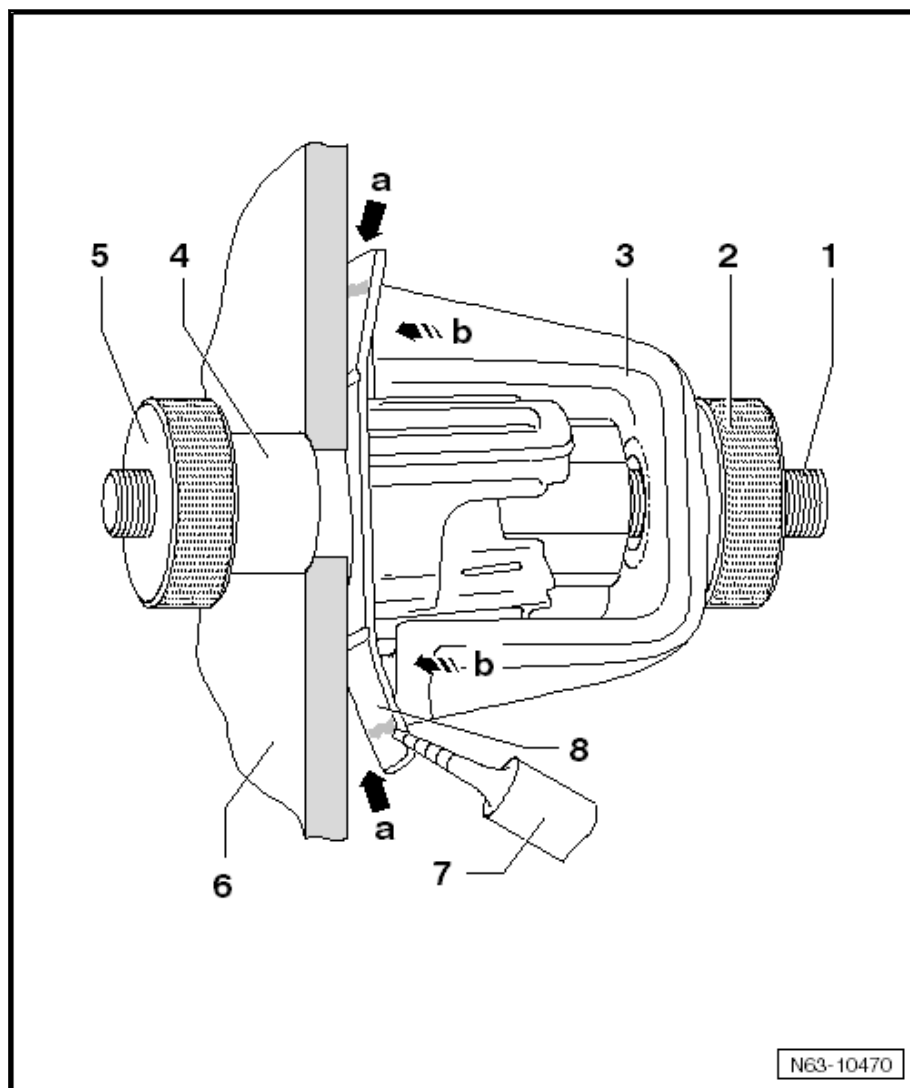
- Pay attention to the orientation of the bracket according to the alignment of the sensors -arrows-.
- Pay attention to the orientation of the sensors in the illustration.
- The connections on the sensors -1 and 2- are aligned toward the left -a arrows- when viewed from the inside of the bumper cover.



**Note**

*Approximately 1 cm of adhesive from the tip should not be applied.*





- Lightly sand the inside of the bumper cover -6- and thoroughly clean it.
- Very thinly apply the bonding agent for plastic to the bumper cover and bracket and let it set for 10 minutes.
- Push the bracket of the PDC Holder Tool Set - 4 Attachment Aids - VAS 6614/7- -8- on the centering drift -1- and push through the bumper cover -6-.
- Slide on the counterholder -4- and lightly tighten the knurled nut -5-.
- Slide on the clamping clip -3- and position the knurled nut -2-, but do not tighten.
- All brackets are prepared up to this step.



#### Note

*The adhesive cannot run up to the bend.*

- Apply the adhesive as shown and tighten the knurled nut -2-.
- After the minimum curing time ⇒ [page 223](#), remove all centering drifts.





### Minimum Curing Time

Wait 30 minutes for the minimum curing time before performing any additional work on the bumper cover and the brackets.

The bumper cover must stay in place and may not be moved during this time.

## 2.4 Rear Bumper Cover

⇒ [“2.4.1 Overview”, page 223](#)

⇒ [“2.4.2 Removing”, page 224](#)

⇒ [“2.4.3 Installing”, page 225](#)

⇒ [“2.4.4 Rear Bumper Cover Attachments”, page 226](#)



### Note

*Slight differences may have to be made to removal and installation procedures of rear bumper cover, depending upon equipment installed in vehicle.*

### 2.4.1 Overview







**1 - Guide**

**2 - Securing Strip**

**3 - Bolt**

- ☐ Quantity: 2 on each side
- ☐ Tightening specification: 5 Nm

**4 - Expanding Rivet**

- ☐ Quantity: 1 on each side

**5 - Bolt**

- ☐ Quantity: 2
- ☐ Tightening specification: 2 Nm

**6 - Bolt**

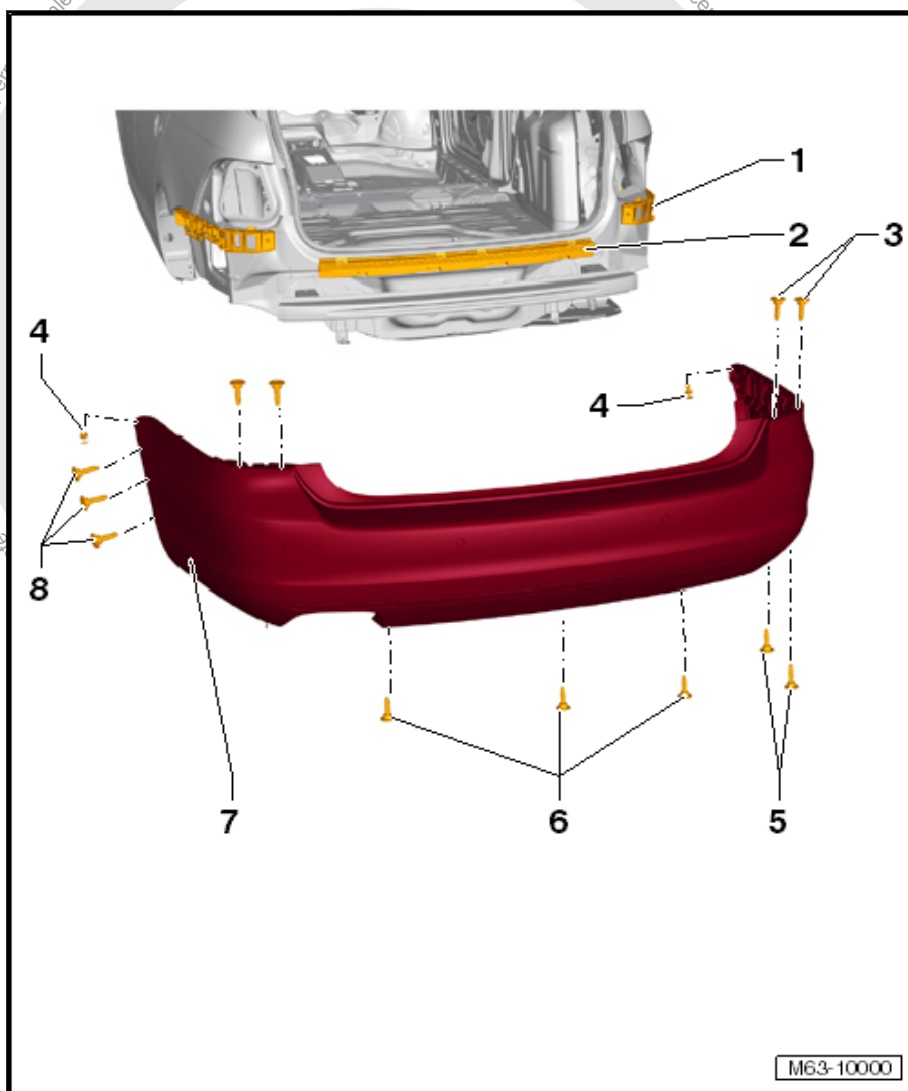
- ☐ Quantity: 3
- ☐ Tightening specification: 5 Nm

**7 - Rear Bumper Cover**

- ☐ PP/EPDM material
- ☐ Removing. Refer to ⇒ ["2.4.2 Removing", page 224](#).
- ☐ Installing. Refer to ⇒ ["2.4.3 Installing", page 225](#).
- ☐ Information regarding the parking aid. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lamps, Bulbs, Switches; Parking Aid.

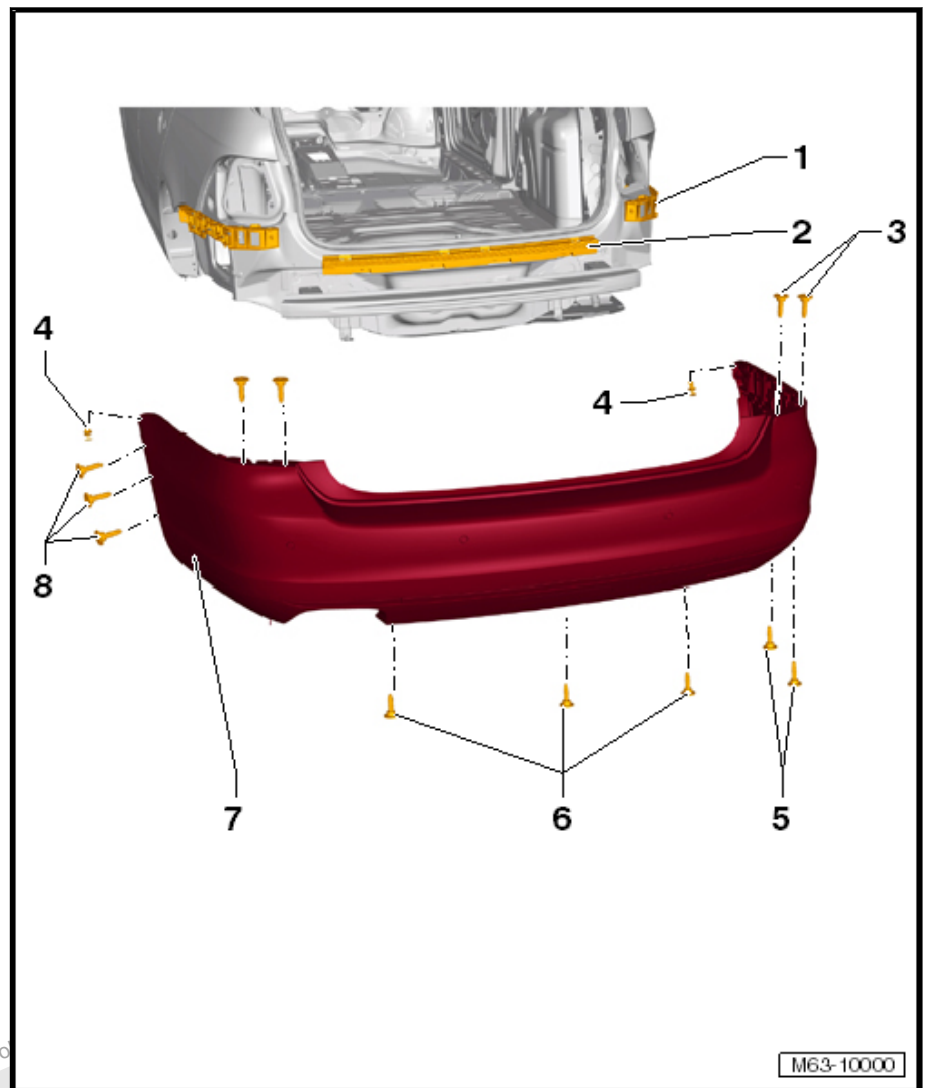
**8 - Bolt**

- ☐ Quantity: 3 on each side
- ☐ Tightening specification: 2 Nm
- ☐ Attached to the wheel housing liner



## 2.4.2 Removing





- Remove the tail lamp assembly. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lights, Lamps and Switches; Tail Lamp Assembly, Removing and Installing .
- Remove the screws -8- near the left and right wheel housing liner.
- Pry out left and right expanding rivet -4- using a screwdriver.
- Remove the bolts -3, 5 and 6-.

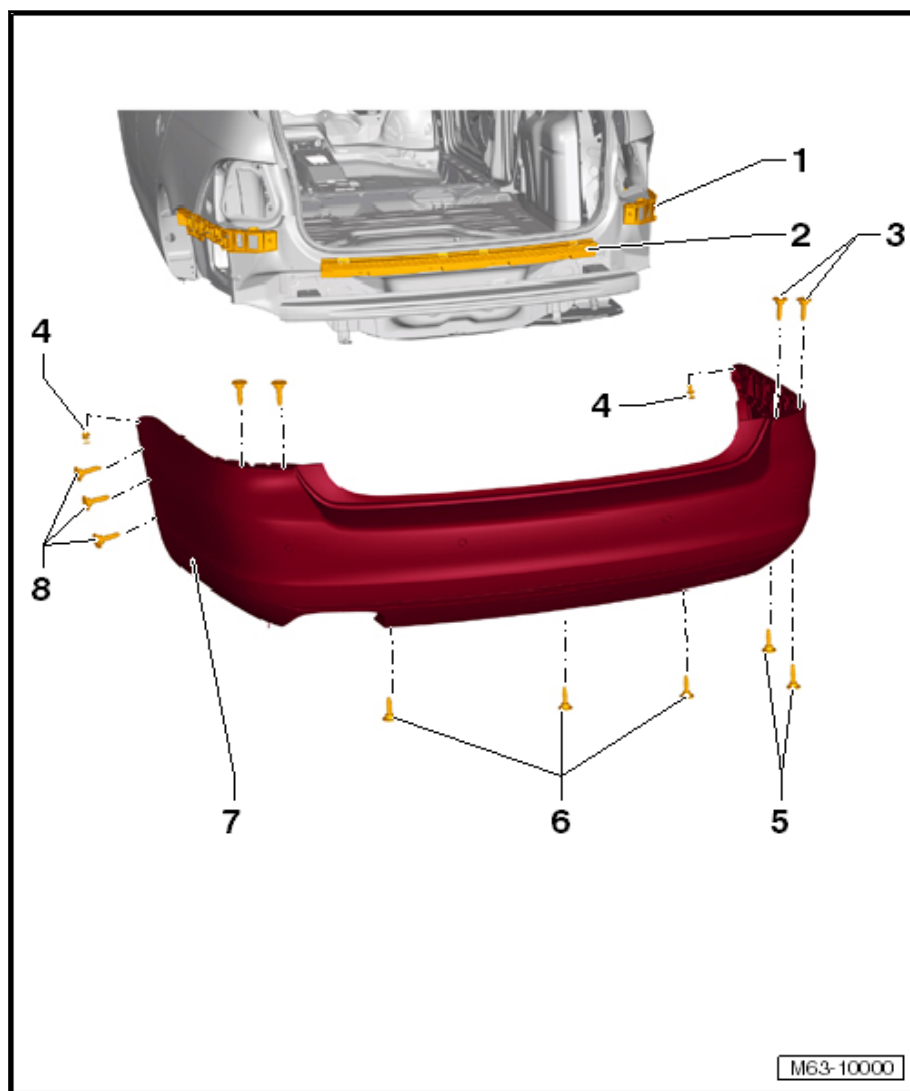
A second technician is required for the rest of the removal procedure.

- Remove the bumper cover -7- parallel to the guide profiles -1- and the securing strip -2-.
- Disconnect the connectors from the installed electrical components.

Information regarding the parking aid. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lamps, Bulbs, Switches; Parking Aid

## 2.4.3 Installing





Install in reverse order of removal.



#### Note

*Be sure to hold the rear bumper cover parallel when inserting it into the left and right guides.*

- Pay close attention to the parallel alignment and the gap dimensions. Refer to ⇒ Body Repair; Rep. Gr. 00; Technical Data; Body Panel Gap Dimensions; Body Rear .
- Remove the bolts -3, 5, 6 and 8- to the specification. Refer to ⇒ ["2.4.1 Overview", page 223](#) .

Information regarding the parking aid. Refer to ⇒ Electrical Equipment; Rep. Gr. 94 ; Exterior Lamps, Bulbs, Switches; Parking Aid .

## 2.4.4 Rear Bumper Cover Attachments





### 1 - Rear Bumper Cover

- ☐ PP/EPDM material
- ☐ Removing. Refer to ["2.4.2 Removing", page 224](#).
- ☐ Installing. Refer to ["2.4.3 Installing", page 225](#).

### 2 - Right Rear Reflector

- ☐ Attached inside the rear bumper cover

### 3 - Towing Eye Cap

- ☐ Secured in the bumper cover

### 4 - Spoiler

- ☐ PC/ABS material
- ☐ Attached inside the rear bumper cover
- ☐ To be removed only with rear bumper cover removed.

### 5 - Cap

- ☐ Only on trailer equipment

### 6 - Pin

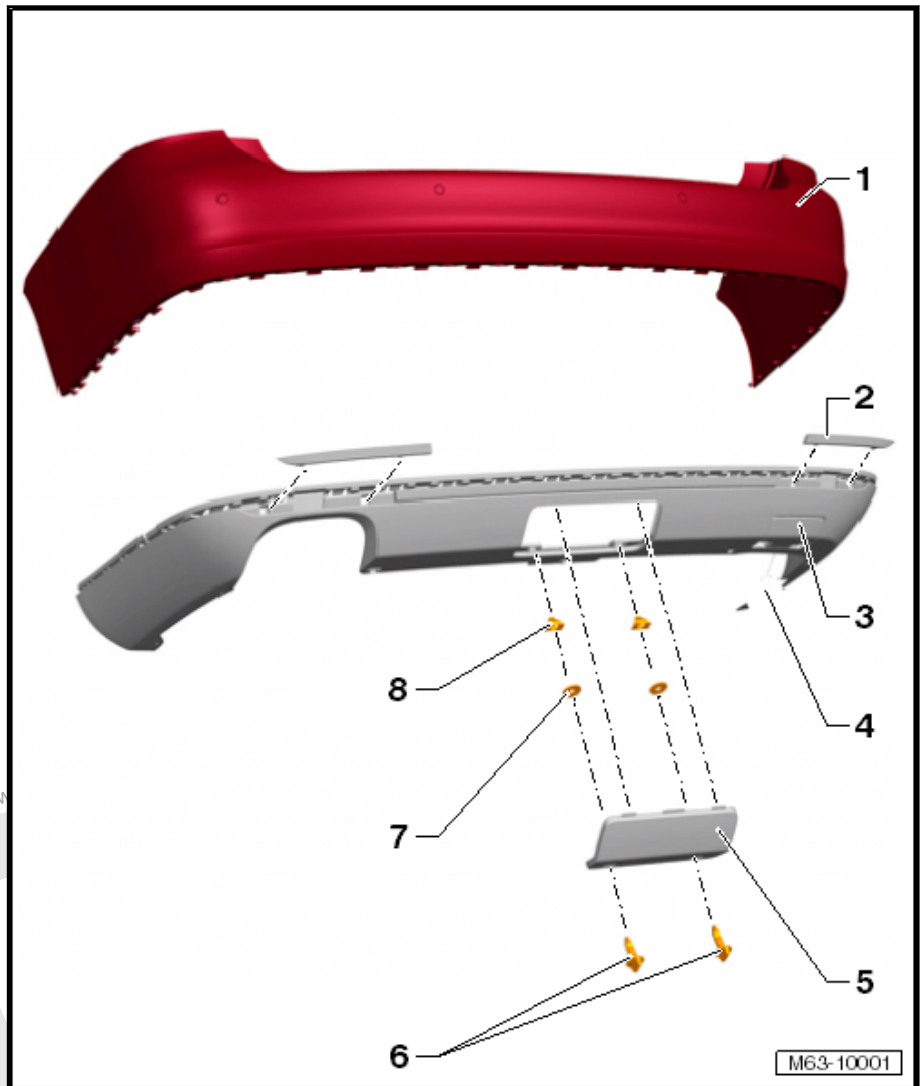
- ☐ Quantity: 2
- ☐ Only on trailer equipment

### 7 - Retaining Washer

- ☐ Quantity: 2
- ☐ Only on trailer equipment

### 8 - Spring Clamp

- ☐ Quantity: 2
- ☐ Only on trailer equipment



## 2.5 Rear Bumper Cover Substructure





**1 - Securing Strip**

**2 - Nut**

- ☐ Quantity: 4
- ☐ 2 Nm

**3 - Nut**

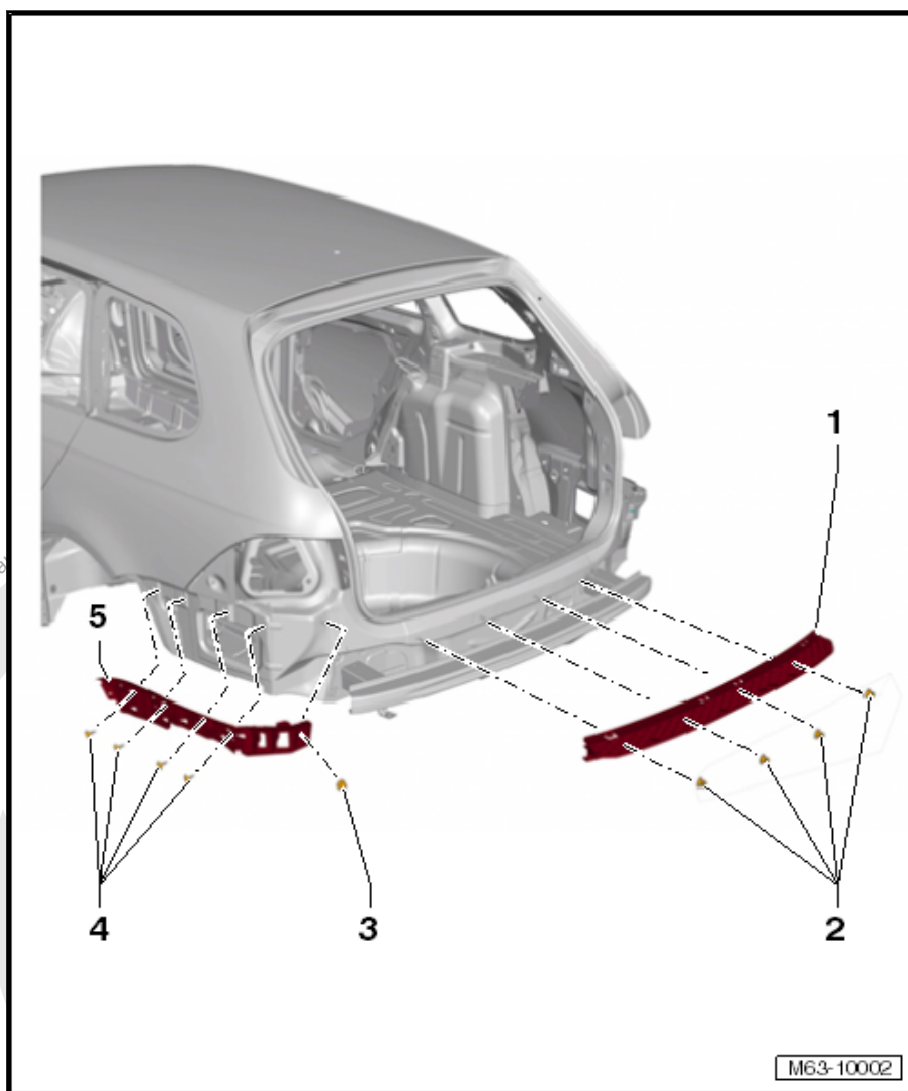
- ☐ Quantity: 1 on each side
- ☐ 2 Nm

**4 - Bolt**

- ☐ Quantity: 4 on each side
- ☐ 2 Nm

**5 - Guide**

- ☐ Left and right



## 2.6 Rear Bumper Carrier

⇒ ["2.6.1 Overview", page 228](#)

### 2.6.1 Overview





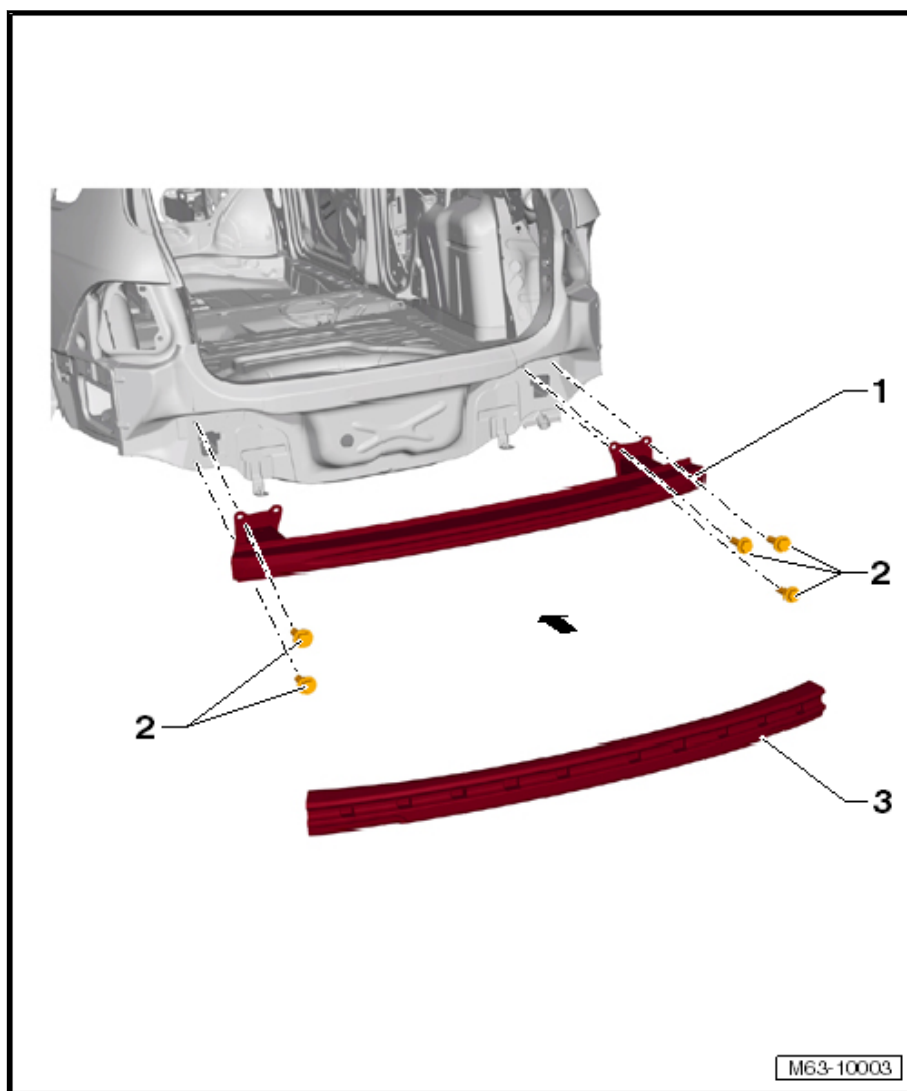
**1 - Bumper Carrier**

**2 - Bolt**

- ☐ Quantity: 5
- ☐ 20 Nm

**3 - Foam Piece**

- ☐ North America only



## 2.7 Overview - Trailer Hitch



**Note**

- ◆ Depending on the version, slight deviations must be considered.
- ◆ The tightening specifications only apply to factory-installed trailer hitches.
- ◆ If a different trailer hitch is installed, ask the manufacturer for the tightening specifications.





#### 1 - Bolt

- ☐ Gas-tight sealing threaded connections
- ☐ Quantity: 3
- ☐ 20 Nm



**DANGER!**

*The bolts are actually sealing threaded connections and seal off the passenger compartment from exhaust gas. They must always be installed.*

#### 2 - Trailer Hitch

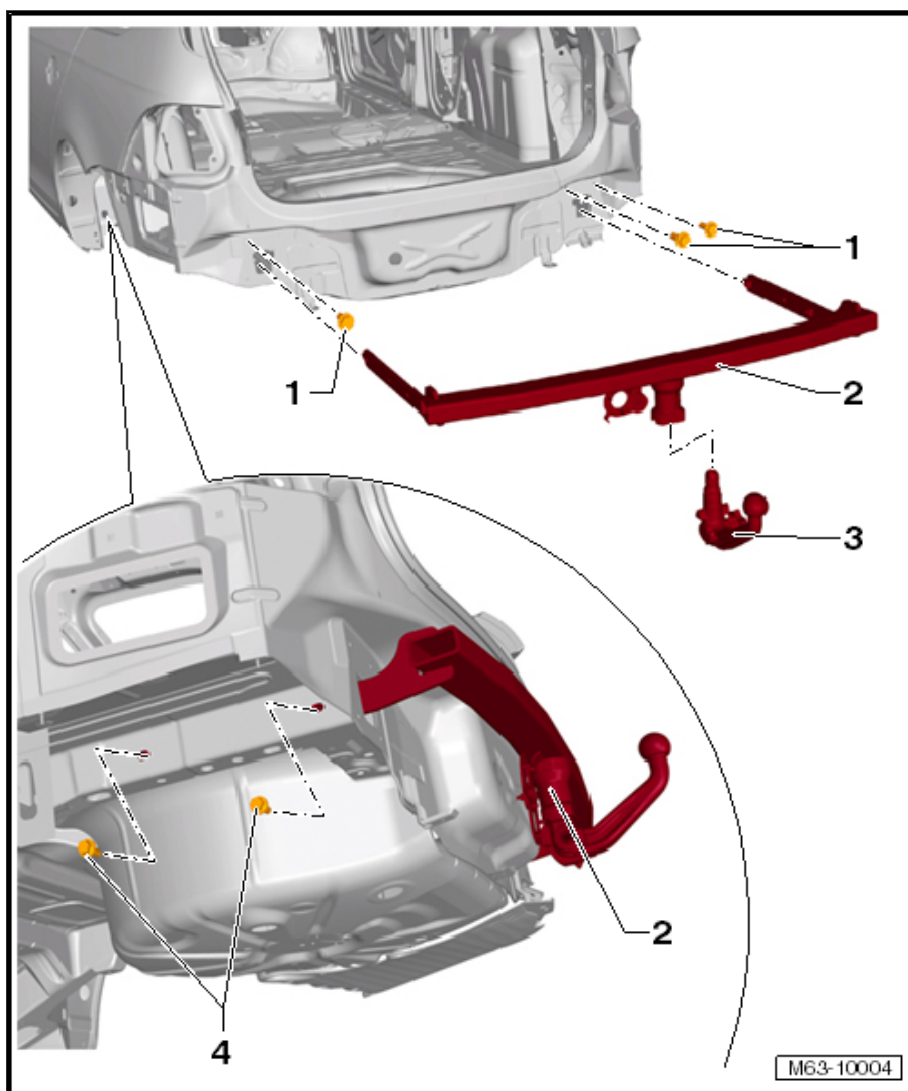
- ☐ Trailer hitch with removable ball head

#### 3 - Ball Head

- ☐ The removable ball head is installed under the folding luggage compartment floor.

#### 4 - Bolt

- ☐ Quantity: 2 on each side
- ☐ 50 Nm + 90° + 30° additional turn
- ☐ Always replace bolts after loosening them



any liability with respect to the correctness of information in this document





## 64 – Glass, Window Regulators

### 1 Flush Bonded Windows

- ⇒ [“1.1 Tools”, page 231](#)
- ⇒ [“1.2 Materials”, page 234](#)
- ⇒ [“1.3 Overview - Windshield”, page 234](#)
- ⇒ [“1.4 Windshield, Removing”, page 235](#)
- ⇒ [“1.5 Windshield, Installing”, page 237](#)
- ⇒ [“1.6 Overview - Rear Window”, page 237](#)
- ⇒ [“1.7 Undamaged Rear Window, Removing”, page 238](#)
- ⇒ [“1.8 Damaged Rear Window, Removing”, page 239](#)
- ⇒ [“1.9 Rear Window, Installing”, page 240](#)
- ⇒ [“1.10 Overview - Side Window”, page 240](#)
- ⇒ [“1.11 Undamaged Side Window, Removing”, page 241](#)
- ⇒ [“1.12 Damaged Side Window, Removing”, page 243](#)
- ⇒ [“1.13 Side Window, Installing”, page 243](#)
- ⇒ [“1.14 Undamaged Window, Preparing for Glazing”, page 244](#)
- ⇒ [“1.15 New Window Without Pre-Coating, Preparing for Glazing”, page 244](#)
- ⇒ [“1.16 Body Flange, Preparing for Glazing”, page 245](#)
- ⇒ [“1.17 Installation Instructions”, page 246](#)
- ⇒ [“1.18 Minimum Curing Time”, page 246](#)
- ⇒ [“1.19 Paint Damage, Repairing”, page 246](#)
- ⇒ [“1.20 Adhesive Sealant, Removing from Window”, page 247](#)

#### 1.1 Tools



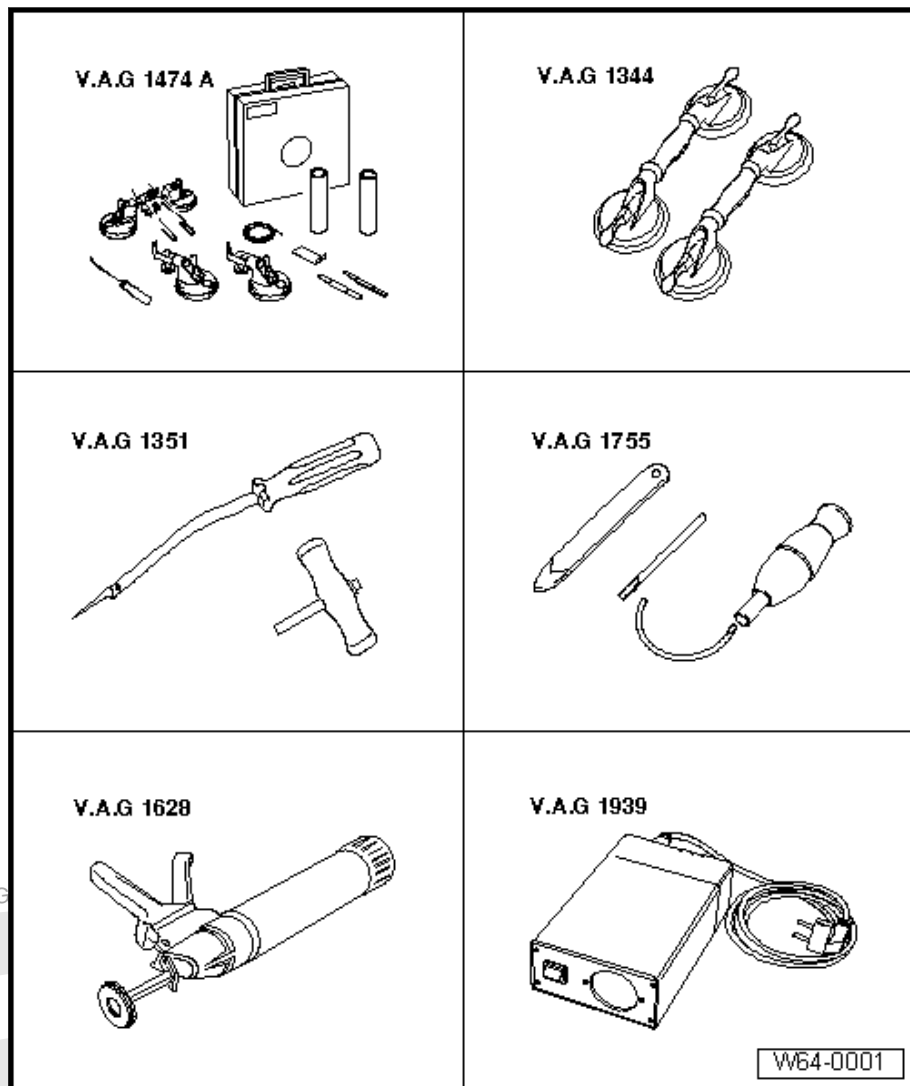
##### Note

*Removing the bonded windows is described using the Flush Bonded Window Kit - V.A.G 1474 B-. The corresponding tools can also be taken from the Cutting Tool for Bonded Windows - VAS 6452- or the Bearing Installer - Differential Bearing - VAS 6888-.*





**Special tools and workshop  
equipment required**



◆ Flush Bonded Window Kit - V.A.G 1474 B- / Cutting Tool for Bonded Windows - VAS 6452- / Window Removal Set VAS 6888 - VAS 6888-

◆ Double Suction Lifter - V.A.G 1344-

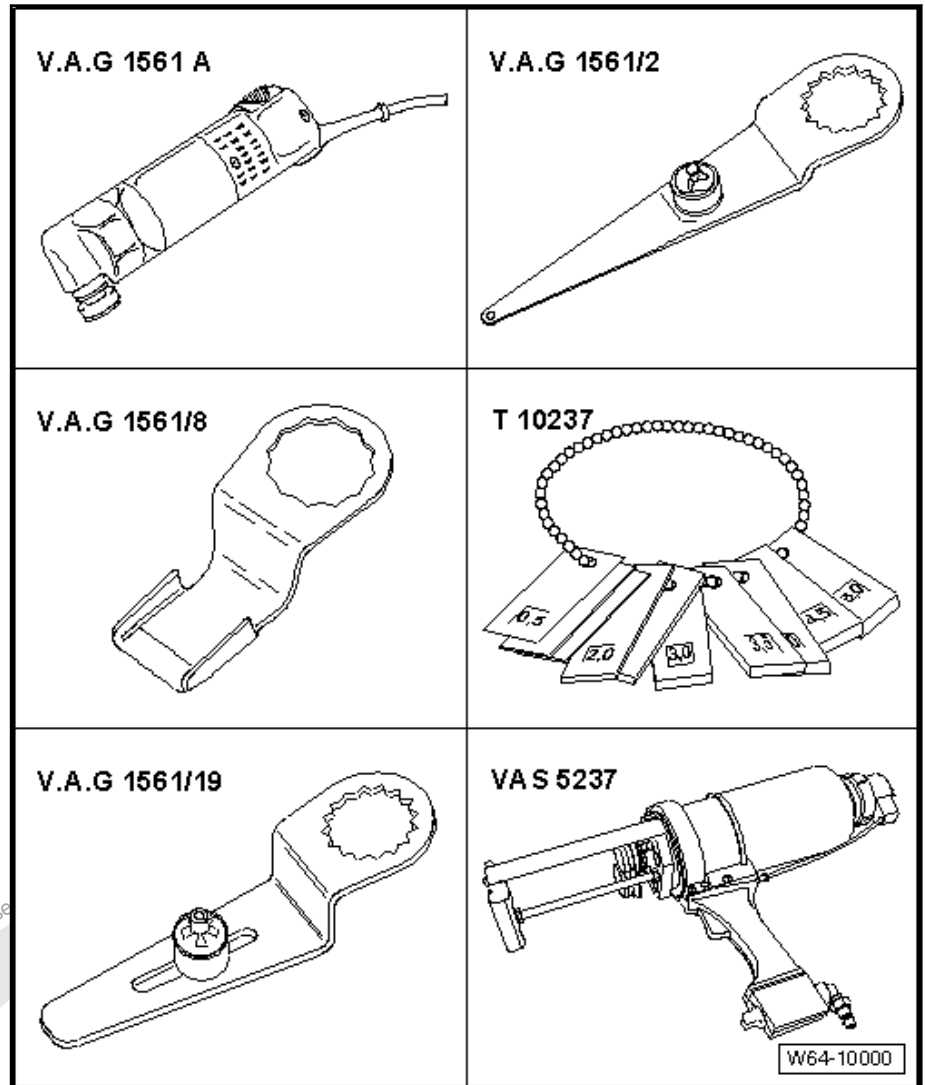
◆ Bonded Window Tool Kit - V.A.G 1351-

◆ Window Removing Kit - V.A.G 1755-

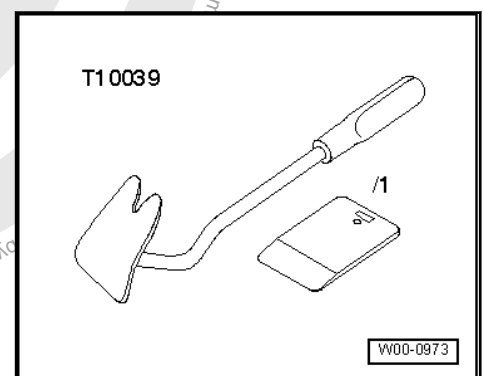
◆ Cartridge Gun - V.A.G 1628-

◆ Cartridge Heater - V.A.G 1939A-





- ◆ Window Cutter - V.A.G 1561 A-
- ◆ Window Cutter - Offset Blade (2 pc.) - V.A.G 1561/2-
- ◆ Window Cutter - Scraper - V.A.G 1561/8-
- ◆ Gauge - Gap Adjustment - 3371-
- ◆ Window Cutter - Blade (2 pc.) - V.A.G 1561/19-
- ◆ Double Cartridge Adhesive Gun - VAS 5237-
- ◆ Trim Release Lever - Wedge - T10039 /1-







## 1.2 Materials



### Note

Refer to the *Electronic Parts Catalog (ETKA)* for the material part numbers.

- ◆ Two-part window adhesive kit <sup>1) 2) 4)</sup>
- ◆ One-part window adhesive <sup>1) 2) 3) 5)</sup>
- ◆ Activator <sup>1)</sup>
- ◆ Glass and paint primer <sup>1)</sup>
- ◆ Cleaning solution <sup>1)</sup>
- ◆ Applicator <sup>1)</sup>

<sup>1)</sup> Follow the manufacturer processing guidelines supplied in the packaging.

<sup>2)</sup> Note the minimum curing time. Refer to ⇒ ["1.18 Minimum Curing Time", page 246](#).

<sup>3)</sup> Heat according to manufacturer's instructions using the Cartridge Heater - V.A.G 1939A- .

<sup>4)</sup> To process this material, the Double Cartridge Gun - VAS 5237- must be used.

<sup>5)</sup> Small cartridge for sealing and/or when a 400 ml double cartridge is not enough.

## 1.3 Overview - Windshield



## 1 - Windshield

- ☐ Removing. Refer to ➤ [“1.4 Windshield, Removing”, page 235](#).
- ☐ Installing. Refer to ➤ [“1.5 Windshield, Installing”, page 237](#).

## 2 - PUR Adhesive Sealant

- ☐ Bead diameter:  
-Width b- = 6.5 mm  
-Height a- Height = 10 mm (including the pre-coating, residual material on the window and the window flange)
- ☐ Minimum Curing Time. Refer to ➤ [“1.18 Minimum Curing Time”, page 246](#).

## 3 - Body Flange

- ☐ Paint damage, repairing if damaged. Refer to ➤ [“1.19 Paint Damage, Repairing”, page 246](#).

## 4 - Window Adjuster

- ☐ 443 845 631 A

## 5 - Retainer

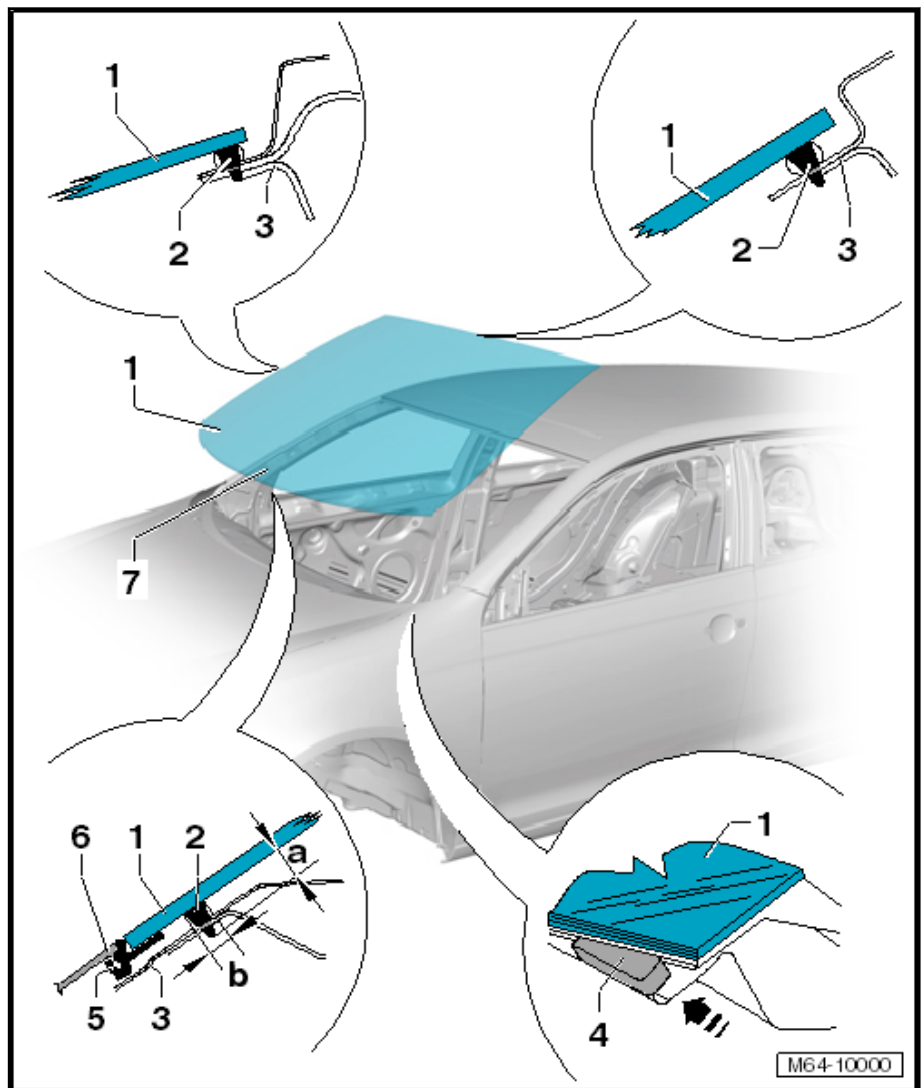
- ☐ Is a component of the windshield

## 6 - Plenum Chamber Cover

- ☐ May only be pulled out of the retainer by hand.
- ☐ Removing. Refer to ➤ [“4.1.3 Installing”, page 20](#).
- ☐ Installing. Refer to ➤ [“4.1.3 Installing”, page 20](#).

## 7 - Adhesive Bead End

- ☐ Apply the adhesive bead joint in this area



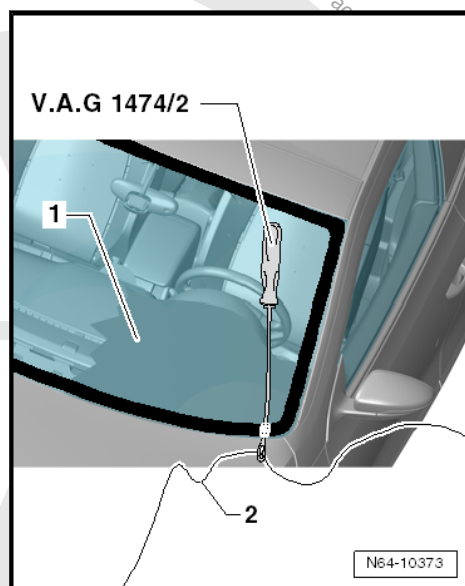
## 1.4 Windshield, Removing

- Remove the A-pillar trim. Refer to ➤ Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation, Pillar Trim .
- Remove the sun visors. Refer to ➤ Body Interior; Rep. Gr. 68 ; Interior Equipment; Compartments, Covers and Trim .
- Remove the interior rearview mirror. Refer to ➤ Body Interior; Rep. Gr. 68 ; Interior Equipment; Interior Rearview Mirror .
- Remove the headliner. Refer to ➤ Body Interior; Rep. Gr. 70 ; Trim, Noise Insulation; Roof Trims .
- The headliner can now be lowered far enough so that windshield can be cut out without damaging headliner.

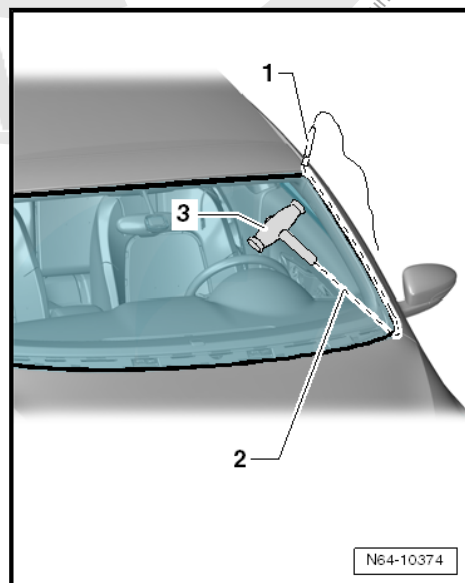




- Remove the plenum chamber cover. Refer to ⇒ [“4.1.2 Re-moving”, page 18](#).
- Slide the Protective Backing - V.A.G 1474/8- -1- between the windshield and instrument panel.
- Pull the cutting wire -2- with the Flush Bonded Window Kit - Awl - V.A.G 1474/2- through the adhesive inside the passenger compartment.



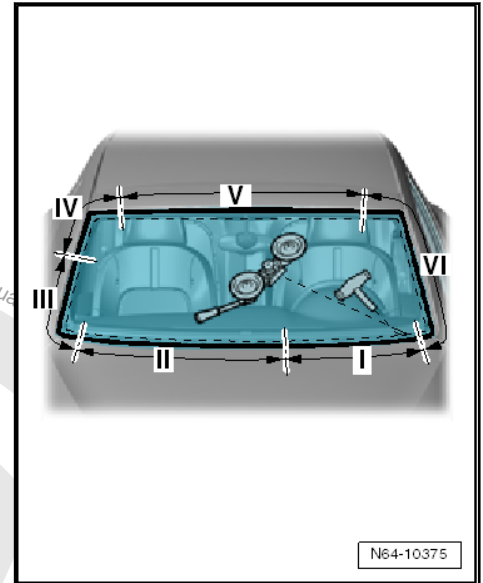
- Secure the end of the cutting wire on the inside with the Bonded Window Tool Kit - Pull Handle - V.A.G 1351/1- -3- so it cannot be pulled out.
- Insert cutting cord -2- into window flange by aid of small tube -1-.
- Lay cutting cord around window.
- Make sure the cutting cord is inserted under the corners of the windshield.







- Secure the other end of the wire in the Window Reel Device - V.A.G 1654 A- .
- Position the Window Reel Device - V.A.G 1654 A- in “position I”.
- Move the Window Reel Device - V.A.G 1654 A- accordingly to cut the window free.
- While cutting free, press cutting cord against window using plastic wedge in order to have clearance from window flange and instrument cluster.



## 1.5 Windshield, Installing

Undamaged Window, Preparing for Glazing. Refer to ⇒ [“1.14 Undamaged Window, Preparing for Glazing”, page 244](#) .

New Window, Preparing for Glazing. Refer to ⇒ [“1.15 New Window Without Pre-Coating, Preparing for Glazing”, page 244](#) .

Body Flange, Preparing for Glazing. Refer to ⇒ [“1.16 Body Flange, Preparing for Glazing”, page 245](#) .

Installation Instructions. Refer to ⇒ [“1.17 Installation Instructions”, page 246](#) .

Minimum Curing Time. Refer to ⇒ [“1.18 Minimum Curing Time”, page 246](#) .

## 1.6 Overview - Rear Window







#### 1 - Rear Window

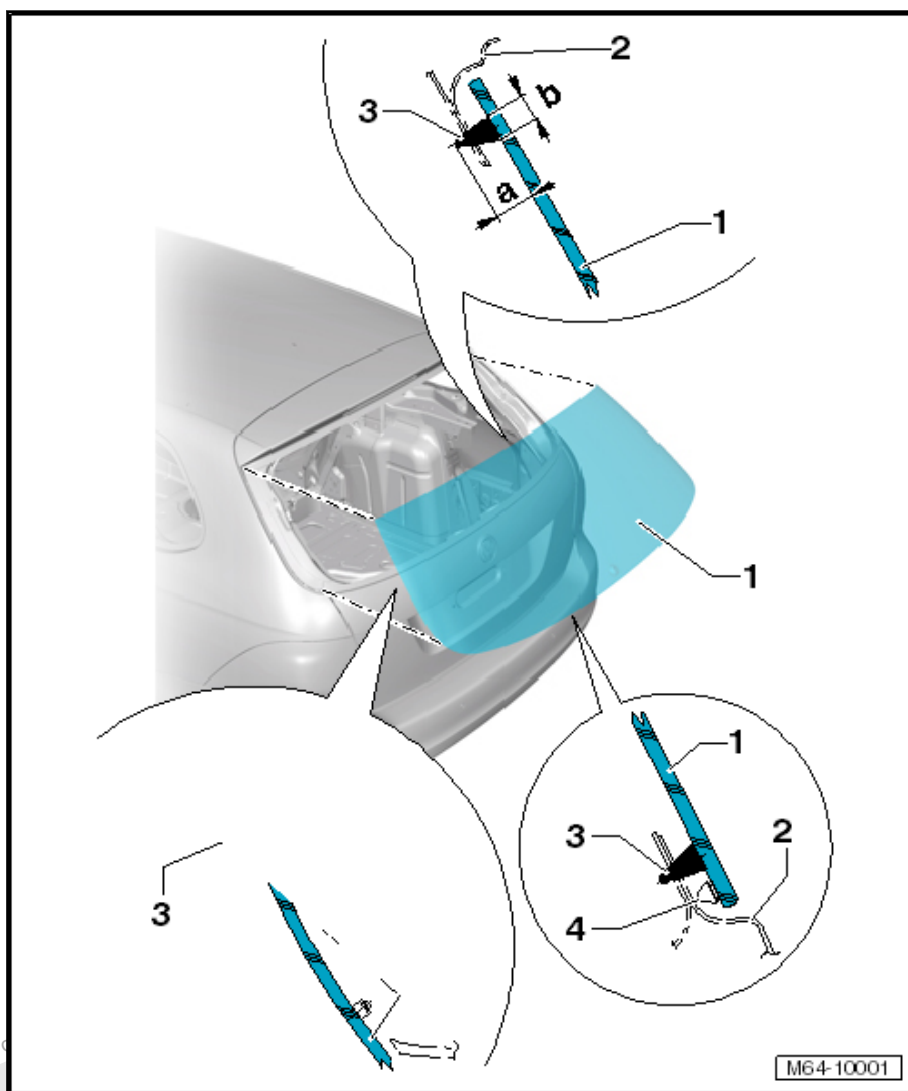
- ❑ Removing. Refer to ⇒ ["1.7 Undamaged Rear Window, Removing", page 238](#).
- ❑ Installing. Refer to ⇒ ["1.9 Rear Window, Installing", page 240](#).

#### 2 - Body Flange

#### 3 - PUR Adhesive Sealant

- ❑ Bead diameter:
  - Width b- = 6.5 mm
  - Height a- Height = 10 mm (including the pre-coating, residual material on the window and the window flange)
- ❑ Apply the bead of adhesive on the side edge of the window glass
- ❑ Minimum Curing Time. Refer to ⇒ ["1.18 Minimum Curing Time", page 246](#).

#### 4 - Spacer



### 1.7 Undamaged Rear Window, Removing

Remove the rear lid trim panel and the window frame trim panel. Refer to ⇒ [Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation, Rear Lid Trim Panels](#).



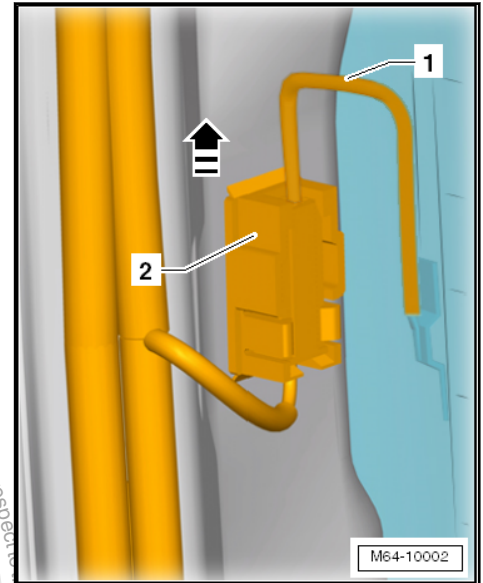
#### Note

*If windshield is to be used again, make sure that electrical connections for windshield heating are not damaged.*

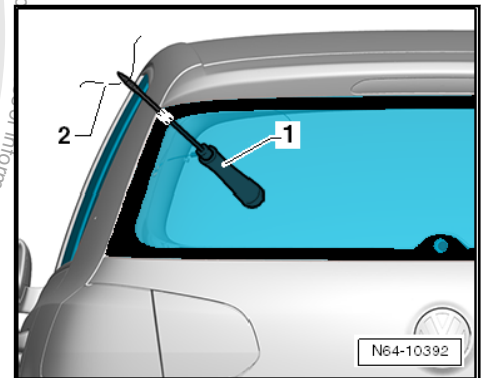




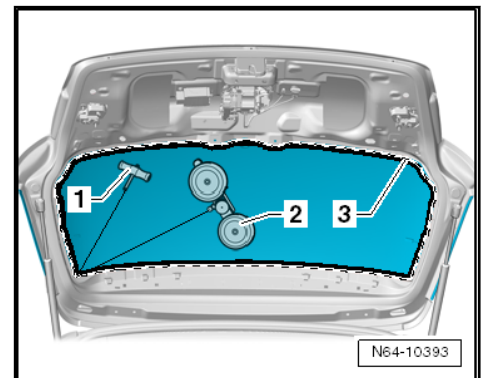
- Remove the connectors -1- for the heated rear window -arrow- and secure it to the window with the adhesive tape.



- Use the Flush Bonded Window Kit - Awl - V.A.G 1474/2- -1- to pierce through the adhesive bead.
- Pull the cutting wire -2- inward through the adhesive using the Flush Bonded Window Kit - Awl - V.A.G 1474/2- -1-.



- Secure the end of cutting wire -3- with handle -1- Bonded Window Tool Kit - Pull Handle - V.A.G 1351/1- before pulling out.
- Lay the cutting wire -3- around the window and also guide the second wire end toward the inside.
- Secure the cutting wire end to the Window Reel Device - V.A.G 1654A- -2-.
- Mount the Window Reel Device - V.A.G 1654 A- -2- in the position shown.
- Move the Window Reel Device - V.A.G 1654 A- -2- accordingly and cut the window free.
- While cutting free, press the cutting wire -3- against the window using the Flush Bonded Window Kit - Wedge - V.A.G 1474/5- to have clearance to window flange.



## 1.8 Damaged Rear Window, Removing

- Protect the body and vehicle interior from glass splinters.
- Remove the glass pieces up to the adhesive sealant.
- Remove the connections for the window defogger and antenna.



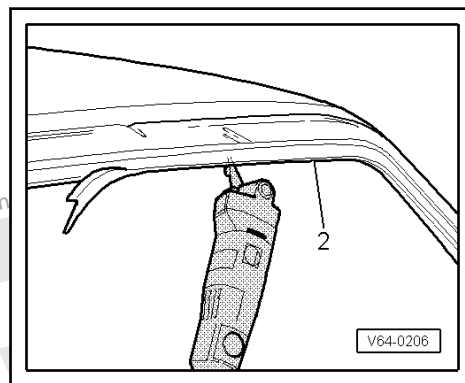


- Bond the flange -2- all around with fabric reinforced adhesive tape.
- Cut through the adhesive sealant (with the remaining glass) in the window opening using the Window Cutter - V.A.G 1561 A- and the Window Cutter - V.A.G 1561- .



#### WARNING

*Always wear protective eyewear and leather gloves.*



## 1.9 Rear Window, Installing

Undamaged Window, Preparing for Glazing. Refer to ⇒ [“1.14 Undamaged Window, Preparing for Glazing”, page 244](#) .

New Window, Preparing for Glazing. Refer to ⇒ [“1.15 New Window Without Pre-Coating, Preparing for Glazing”, page 244](#) .

Body Flange, Preparing for Glazing. Refer to ⇒ [“1.16 Body Flange, Preparing for Glazing”, page 245](#) .

Installation Instructions. Refer to ⇒ [“1.17 Installation Instructions”, page 246](#) .

Minimum Curing Time. Refer to ⇒ [“1.18 Minimum Curing Time”, page 246](#) .

## 1.10 Overview - Side Window





## 1 - Side Window

- ❑ Removing. Refer to ➤ ["1.11 Undamaged Side Window, Removing", page 241](#).
- ❑ Installing. Refer to ➤ ["1.13 Side Window, Installing", page 243](#).

## 2 - Trim Molding

- ❑ Removing. Refer to ➤ [page 242](#).

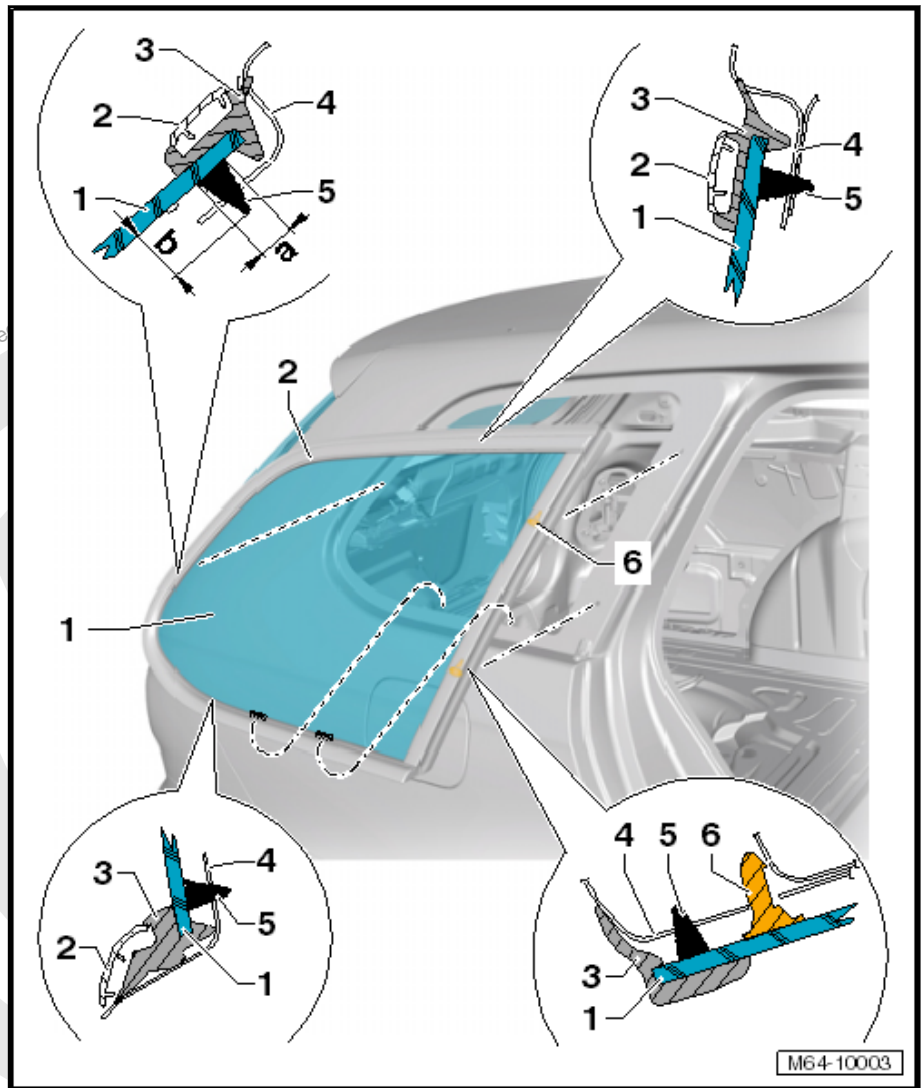
## 3 - Seal

- ❑ Component part of side window.

## 4 - Body Flange

## 5 - PUR Adhesive Sealant

- ❑ Bead cross section:  
width = 6.5 mm  
-dimension a- height = 10 mm -dimension b-  
(including pre-coating,  
residual material on  
window glass and win-  
dow flange)
- ❑ Minimum Curing Time.  
Refer to ➤ ["1.18 Min-  
imum Curing Time",  
page 246](#).



## 1.11 Undamaged Side Window, Removing



### Note

*Removing and installing is described only for the right side window. Removing and installing the left side window is derived accordingly from this.*

- Remove the C- and D-pillar trim panel. Refer to ➤ Body Interior; Rep. Gr. 70 ; Trim Panels and Insulation; Pillar and Side Trim Panels





- If the vehicle is equipped accordingly, disconnect the connector from the impedance converter -1-.
- Pull the cutting wire -1- with the Flush Bonded Window Kit - Awl - V.A.G 1474/2- out of the Flush Bonded Window Kit - V.A.G 1474 A- in the location shown in the illustration and through the adhesive material into the vehicle interior.

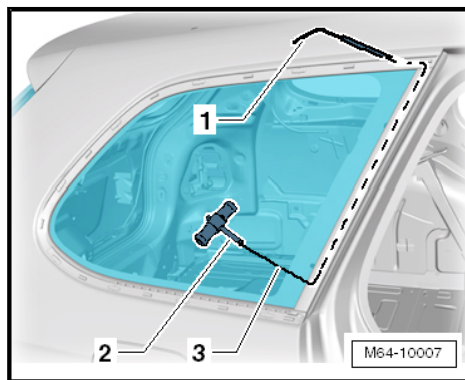
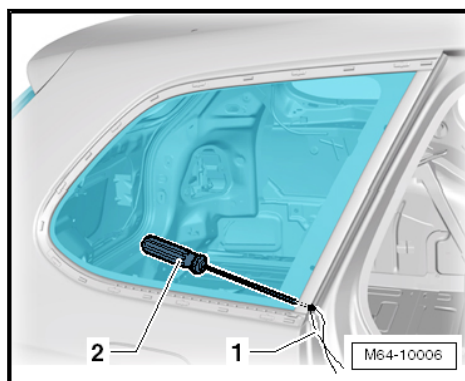
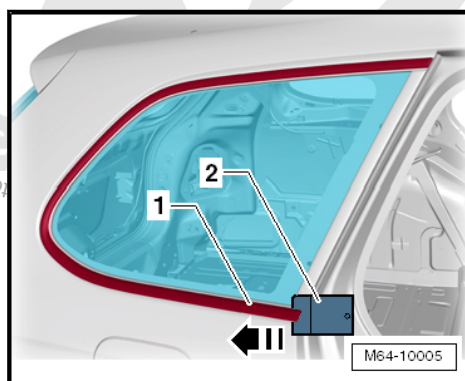
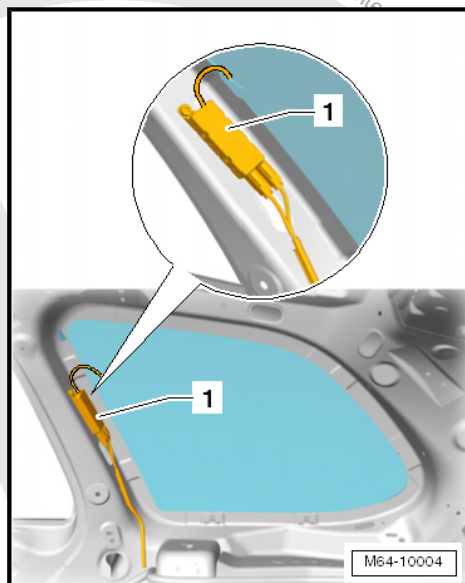
#### Vehicles with side window trim molding

- Slide the Trim Release Lever - Wedge - T10039/1- -2- carefully in the -direction of the arrow- under the trim molding -1-.
- Remove the trim molding -1-.

#### All Vehicles

- Pull the cutting wire -1- through the adhesive sealant into the vehicle interior using the Flush Bonded Window Kit - Awl - V.A.G 1474/2- -2- at the location shown in the illustration.

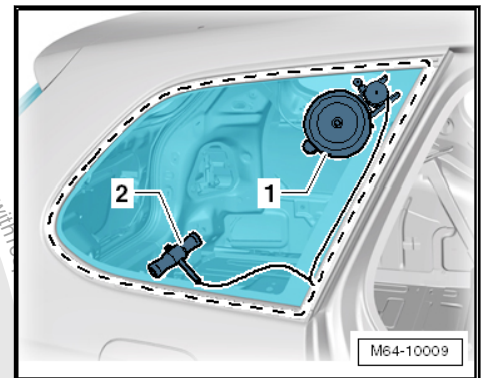
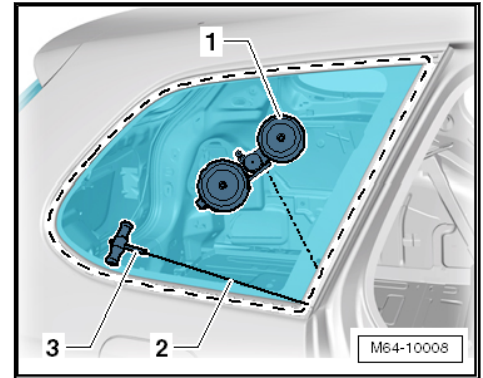
- Insert the cutting cord -3- into the window flange behind the seal using the small tube -1-.







- Secure one end of the wire -2- on the Bonded Window Tool Kit - Pull Handle - V.A.G 1351/1- -3- to the counterhold.
- Pull other end -2- of cutting cord into interior.
- Secure the other end of the wire to the Window Reel Device - V.A.G 1654 A- -1-.
- Move the Window Reel Device - V.A.G 1654 A- -1- accordingly to cut the window free.
- While cutting the window free, push the cutting cord with a plastic wedge against window in order to have clearance at window flange.
- Instead of the Window Reel Device - V.A.G 1654- , the Window Reel Device - V.A.G 1654 A- -1- can also be used.
- One suction cup can be removed from the Window Reel Device - V.A.G 1654- -1- as illustrated. By doing this, the roller of the Window Reel Device - V.A.G 1654 A- can be placed closer to window flange.



## 1.12 Damaged Side Window, Removing

The procedure for removing a broken side window is identical to removing a broken rear window. Refer to ➔ [“1.8 Damaged Rear Window, Removing”, page 239](#).

## 1.13 Side Window, Installing

Undamaged Window, Preparing for Glazing. Refer to ➔ [“1.14 Undamaged Window, Preparing for Glazing”, page 244](#).

New Window, Preparing for Glazing. Refer to ➔ [“1.15 New Window Without Pre-Coating, Preparing for Glazing”, page 244](#).

Body Flange, Preparing for Glazing. Refer to ➔ [“1.16 Body Flange, Preparing for Glazing”, page 245](#).

Installation Instructions. Refer to ➔ [“1.17 Installation Instructions”, page 246](#).

Minimum Curing Time. Refer to ➔ [“1.18 Minimum Curing Time”, page 246](#).





## 1.14 Undamaged Window, Preparing for Glazing

⇒ "1.14.1 Adhesive Bead, Cutting", page 244

### 1.14.1 Adhesive Bead, Cutting



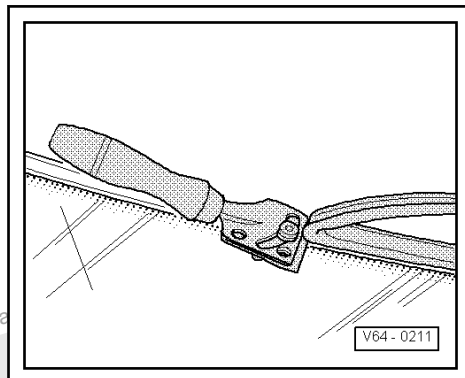
#### Note

- ◆ When re-using an undamaged window, cut back remaining adhesive sealant to 1 to 2 mm shortly before re-adhering, do not damage primer and ceramic coating.
- ◆ The remaining material serves as a base for the new adhesive sealant being applied.



#### WARNING

**Do not prime or use a cleaning solution on the adhesive surface. Keep the adhesive surface free of dirt and grease.**



Exception: if the bonding is not performed immediately after the cutting back procedure, the remaining material must be activated using the activator D 181 801 A1.

## 1.15 New Window Without Pre-Coating, Preparing for Glazing

As a replacement part, window glass is not pre-coated.



#### Note

- ◆ The application area for the adhesive bead is not pre-coated and not primed.
- ◆ The sealing lip is a component of a new windshield.
- Clean an area 20 mm wide around the edge of the window using cleaning solution D 009 401 04.
- Then dry the window edge with a lint-free cloth.



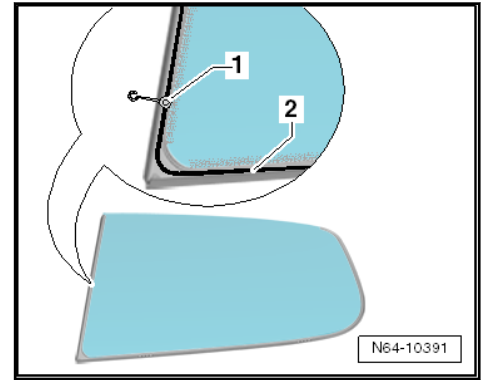
#### WARNING

**The ceramic coating on the glass is not a glass/paint primer. It must always be primed before applying the adhesive sealant. Use only Glass/Paint Primer D 009 200 02.**





- Apply primer -2- evenly in one stroke using applicator D 009 500 25 -1-.
- ◆ Drying time is approximately 10 minutes



## 1.16 Body Flange, Preparing for Glazing

- Cut the remaining material on the body flange back using the Window Cutter - U Blade (2 pc.) - V.A.G 1561/3- but do not remove the remaining material completely.



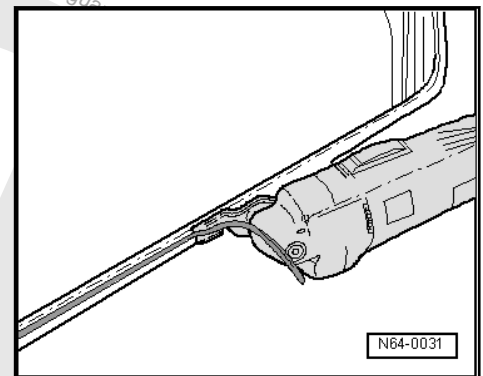
### Note

*The remaining material serves as a base for the new adhesive sealant being applied. Keep the adhesive surfaces free of dirt and grease.*



### WARNING

**Activator must not come into contact with the paint or the paint will be damaged.**



Exception: if the bonding is not performed immediately after the cutting back procedure, the remaining material must be activated using the activator D 181 801 A1.

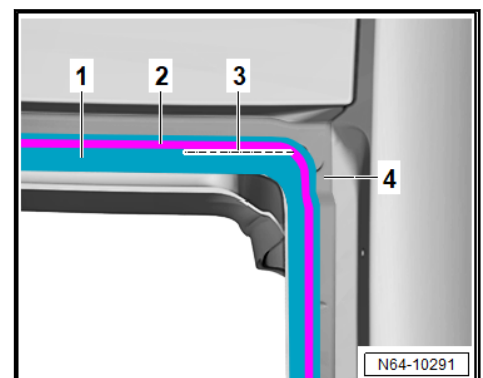
- ◆ If the body flange is being repaired or partially replaced, the corresponding area must be cleaned and primed again before painting.



### Note

*It is possible that the laser weld seam does not lie in the area of the adhesive bead. In this case, the open weld seam must be sealed with window adhesive before bonding the window glass.*

- If the laser weld seam -3- on the sheet metal flange -4- is not covered by the adhesive bead -1-, then coat the laser weld seam -3- with Glass/Paint Primer - D 009 200 02- -3-, and fill the laser weld seam with Window Adhesive - DH 009 100 A2- -1-.







## 1.17 Installation Instructions

⇒ **“1.17.1 Installation Instructions, All Windows”, page 246**

### 1.17.1 Installation Instructions, All Windows

- Apply the adhesive all around at a right angle to the window.

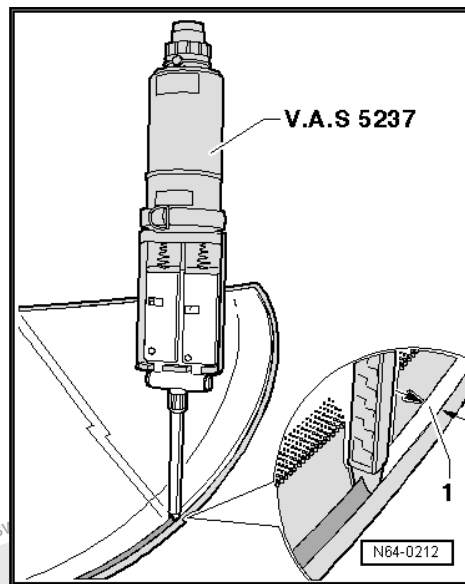


#### WARNING

*The window must be installed within 10 minutes or the adhesive will not bond well.*

*Do not apply the adhesive bead too thickly and do not press windows too firmly on to body flange. Since windows no longer have a sealing lips, surplus adhesive is to be seen in gap area.*

- ◆ With help of two Suction Cups (V.A.G 1344) install window in window opening, center and press in onto the spacing lip.
- ◆ Re-affix any stickers (for example, for airbag).



## 1.18 Minimum Curing Time



#### WARNING

*There are special requirements for replacing bonded windows. This includes, for example, that a newly bonded windshield is safe for vehicle operation and also in case of an accident after a specified minimum curing time.*

The minimum curing time for the two-part window adhesive kit is two hours for all windows.

The minimum curing time for one-part window adhesive is 3 hours for all windows.

Minimum curing time means the time from when the window is bonded to when the vehicle is put back into use. During this time, the vehicle must be on a level surface at room temperature (at least 15 °C (59 °F)).



#### WARNING

*The vehicle is operationally ready only after the minimum curing time has elapsed.*

## 1.19 Paint Damage, Repairing

If there is paint damage, recreate the paint structure according to guidelines in the “Paint” repair manual.





## 1.20 Adhesive Sealant, Removing from Window

- Adhesive Remover D 002 000 10 is recommended as a cleaning solution. Follow all safety precautions when processing.



### WARNING

*When cleaning from inside the vehicle, do not press out on the window that was just installed.*

- First clean the paint surface coarsely using a dry cloth. Remove any remaining dirt using the adhesive remover D 002 000 10.
- Clean the plastic trim panel: let the adhesive sealant harden (approximately one hour) and then peel it off.





## 2 Front Door Window

⇒ ["2.1 Tools", page 248](#)

⇒ ["2.2 Overview - Front Door Window", page 248](#)

⇒ ["2.3 Door Window, Removing and Installing", page 249](#)

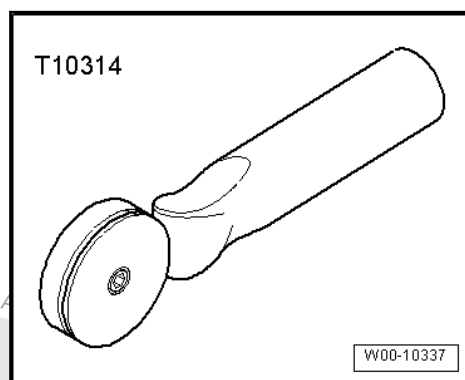
⇒ ["2.4 Window Regulator Motor, Removing and Installing", page 253](#)

⇒ ["2.5 Window Guide, Removing and Installing", page 255](#)

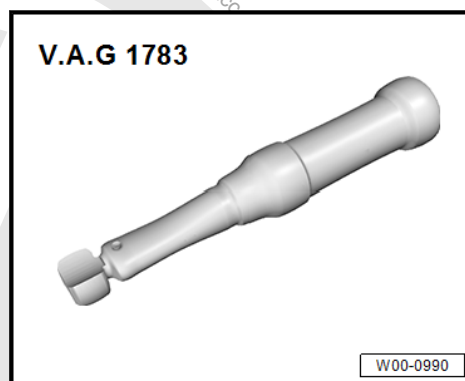
### 2.1 Tools

Special tools and workshop equipment required

◆ Roller - T10314-



◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



### 2.2 Overview Front Door Window



#### Note

- ◆ *The illustration shows the right side. The left side is identical.*
- ◆ *Bolt -4- is accessible from inside and outside. The bolt as viewed from the outside has a right-hand thread. This means from the outside, the bolt is loosened by turning to the right, from the inside its loosened by turning to the right.*





## 1 - Window Guide

- ☐ Removing and Installing. Refer to ⇒ ["2.5 Window Guide, Removing and Installing", page 255](#).

## 2 - Door Window

- ☐ Removing and Installing. Refer to ⇒ ["2.3 Door Window, Removing and Installing", page 249](#).

## 3 - Window Regulator

- ☐ Removing and Installing. Refer to ⇒ ["4 Window Regulator, Removing and Installing", page 260](#).

## 4 - Bolt

- ☐ Quantity: 5
- ☐ Tightening specification: 8 Nm

## 5 - Bolt

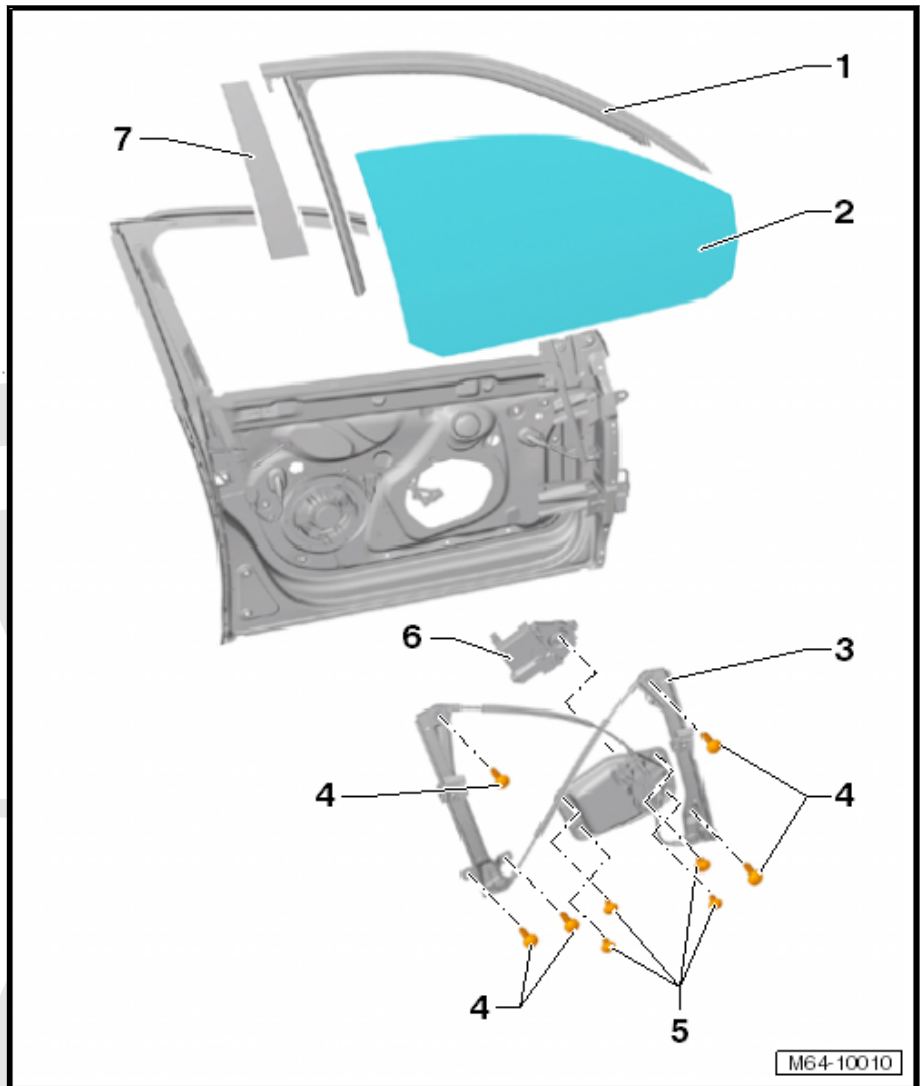
- ☐ Quantity: 4
- ☐ Tightening specification: 8 Nm

## 6 - Window Regulator Motor

- ☐ Removing and Installing. Refer to ⇒ ["2.4 Window Regulator Motor, Removing and Installing", page 253](#).

## 7 - Trim

- ☐ Removing and Installing. Refer to ⇒ [page 264](#).



## 2.3 Door Window, Removing and Installing

⇒ ["2.3.1 Removing", page 249](#)

⇒ ["2.3.2 Installing", page 251](#)

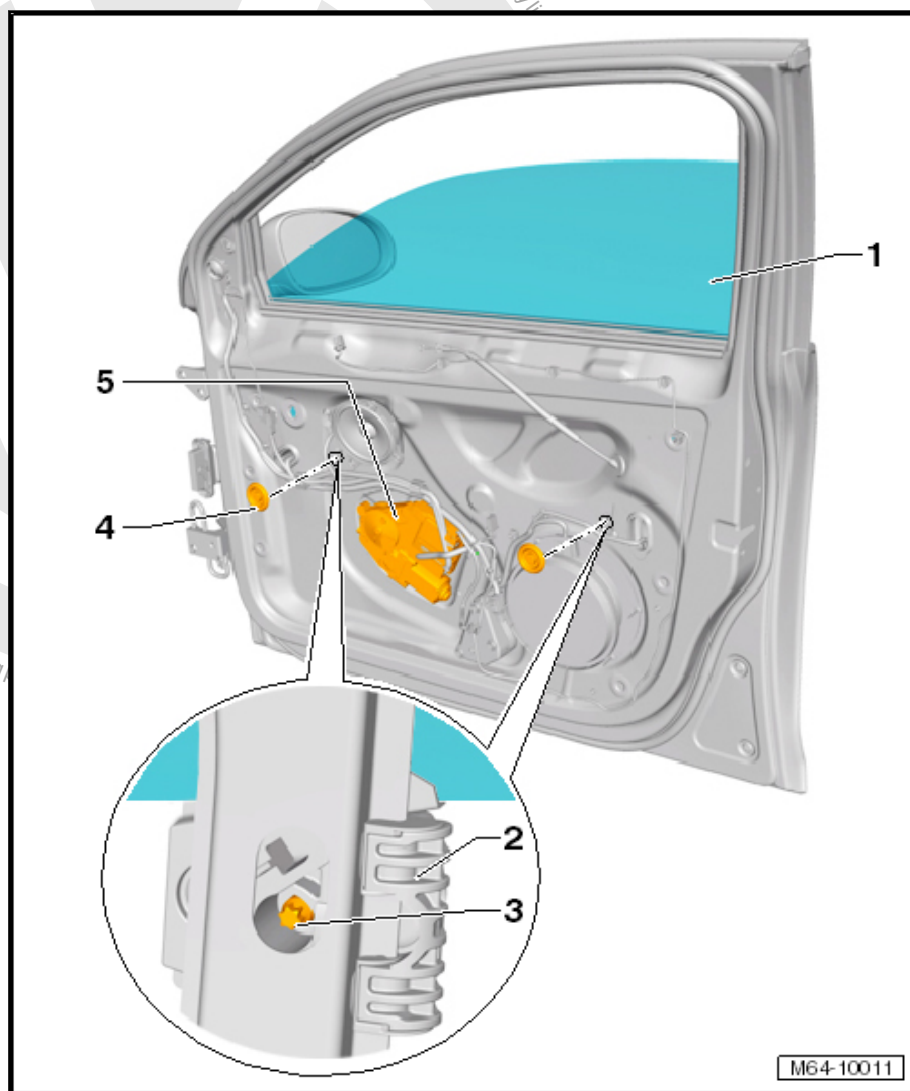
### 2.3.1 Removing



#### Note

- ◆ The following describes the removal and installation of the right door window. Removing and installing the left door window is identical.
- ◆ The bolt -3- is accessible from the inside or from the outside when the outer door panel is removed. The bolt as viewed from the outside has a right-hand thread. This means from the outside: the bolt is loosened by turning to the right, from the inside its loosened by turning to the right.
- Remove the front door trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Door Trim Panels .





- Pry the caps -4- out of the openings in the inner door panel.
- Lower the door window -1- until the locking screws -3- for the mount -2- are accessible in the openings.



**Note**

*If this cannot be done because of a power window malfunction, remove the window regulator motor and then slide the window down.*



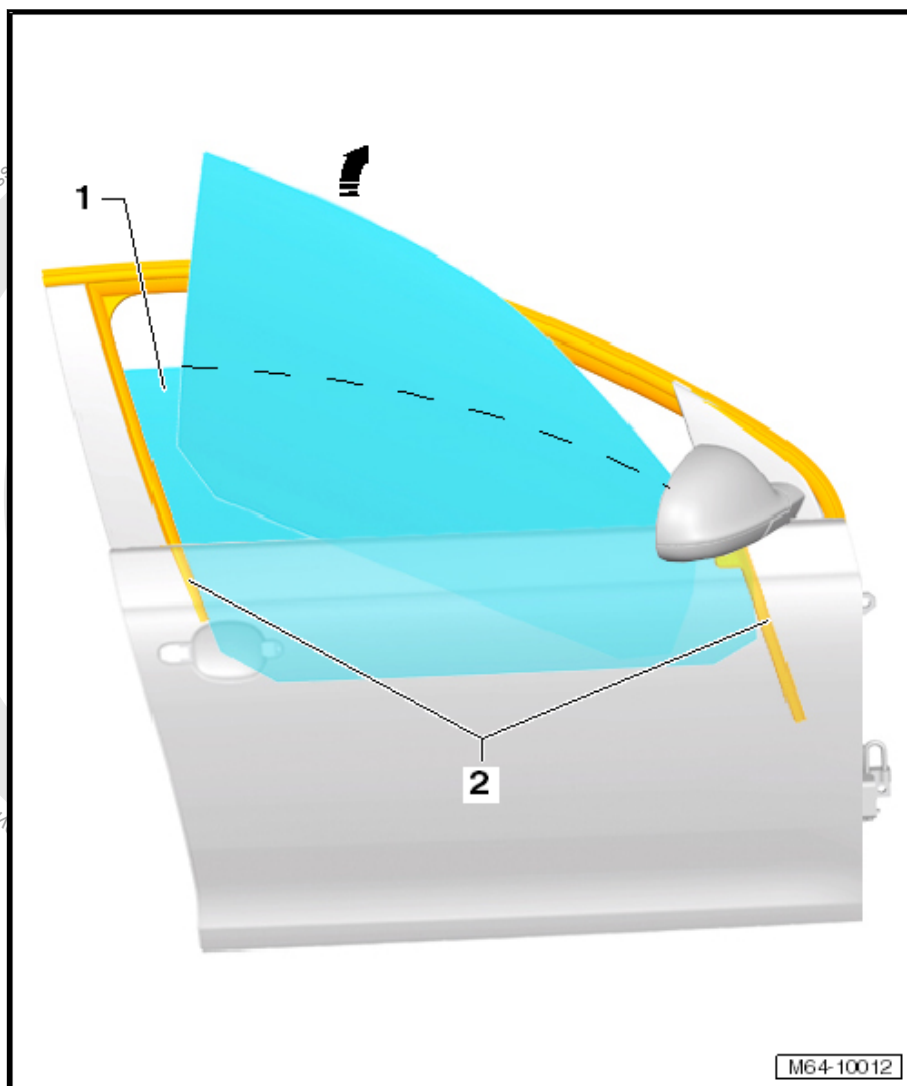
**Caution**

***Loosen screw -3- from inside by turning toward right.***

- Loosen the screws -3- (do not remove) from inside by turning toward right and press apart clamping brackets.



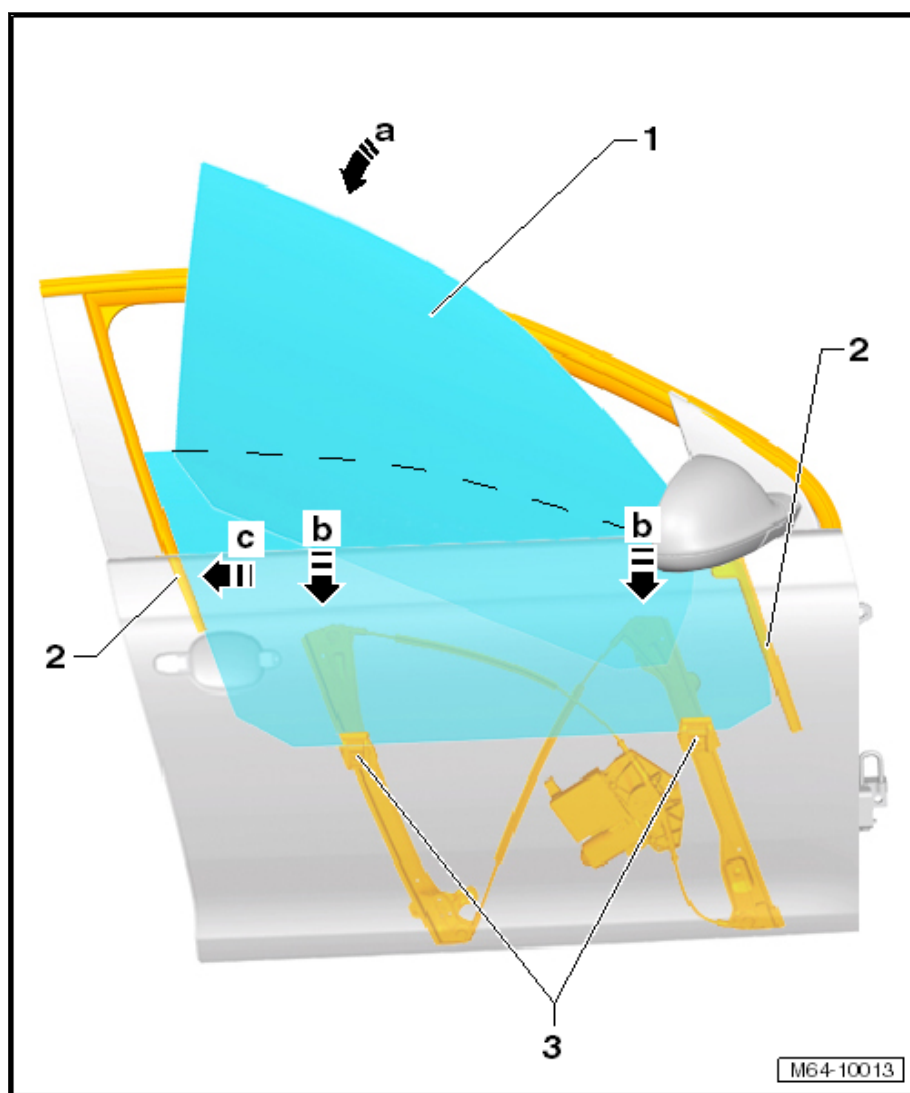
...ing for private or commercial purposes, in part or in whole, is not permitted unless



- Lift the rear door window -1- and remove it in -direction of arrow- from the window guides -2-.

### 2.3.2 Installing





- Install the door window -1- in the -direction of arrow a- into the window guides. Make sure the door window is inserted correctly into the window guide -2-.
- Without using any pressure, guide the door window -arrow b- into the clamping brackets -3-.
- Align the door window with the window frame -arrow c-.
- Now bolt must be tightened by turning toward left.

Bolt tightening specification: 8 Nm

Perform the rest of the installation in the reverse order of removal.

Then perform a function test.





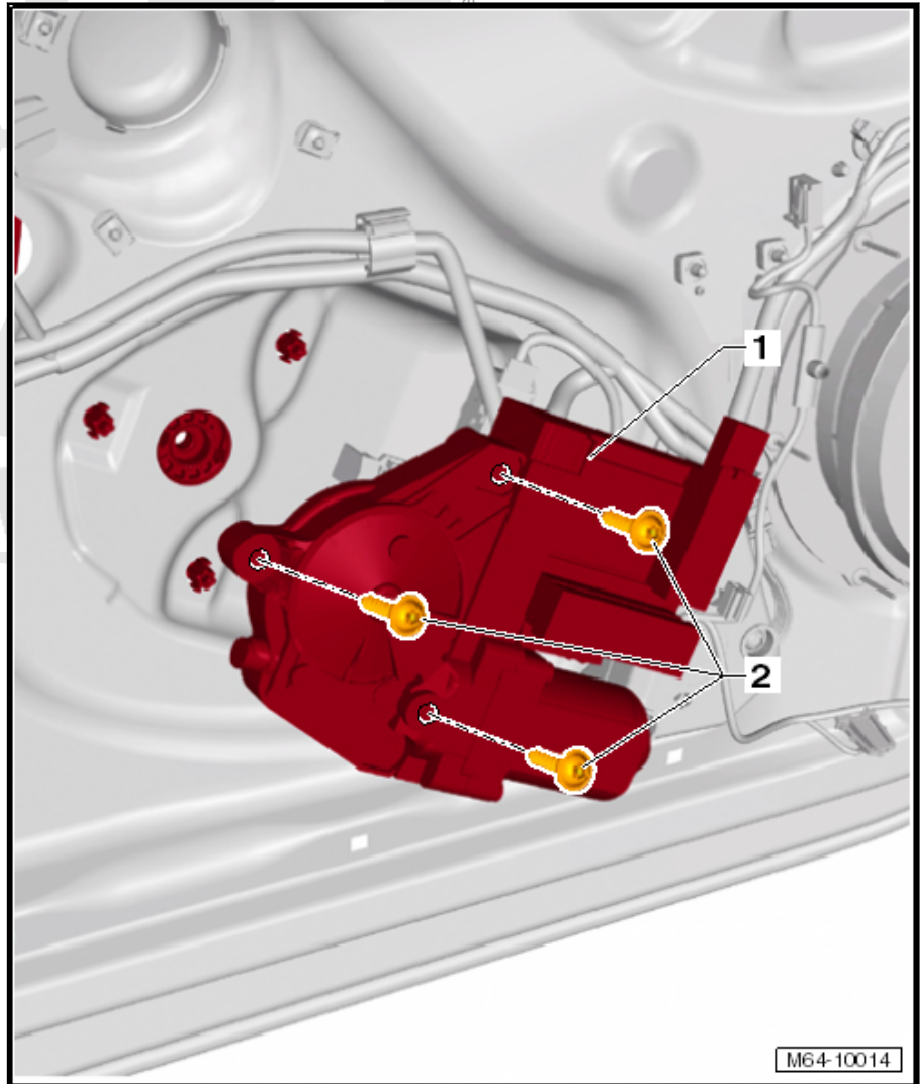
## 2.4 Window Regulator Motor, Removing and Installing

⇒ ["2.4.1 Removing", page 253](#)

⇒ ["2.4.2 Installing", page 254](#)

### 2.4.1 Removing

- Remove the front door trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels/Insulation; Door Trim Panels .



- Fix window using adhesive tape so that it does not slip down.
- Remove the three screws -2-.



#### Caution

- ◆ *Turn off the ignition and all electrical equipment.*
- ◆ *Remove the ignition key.*





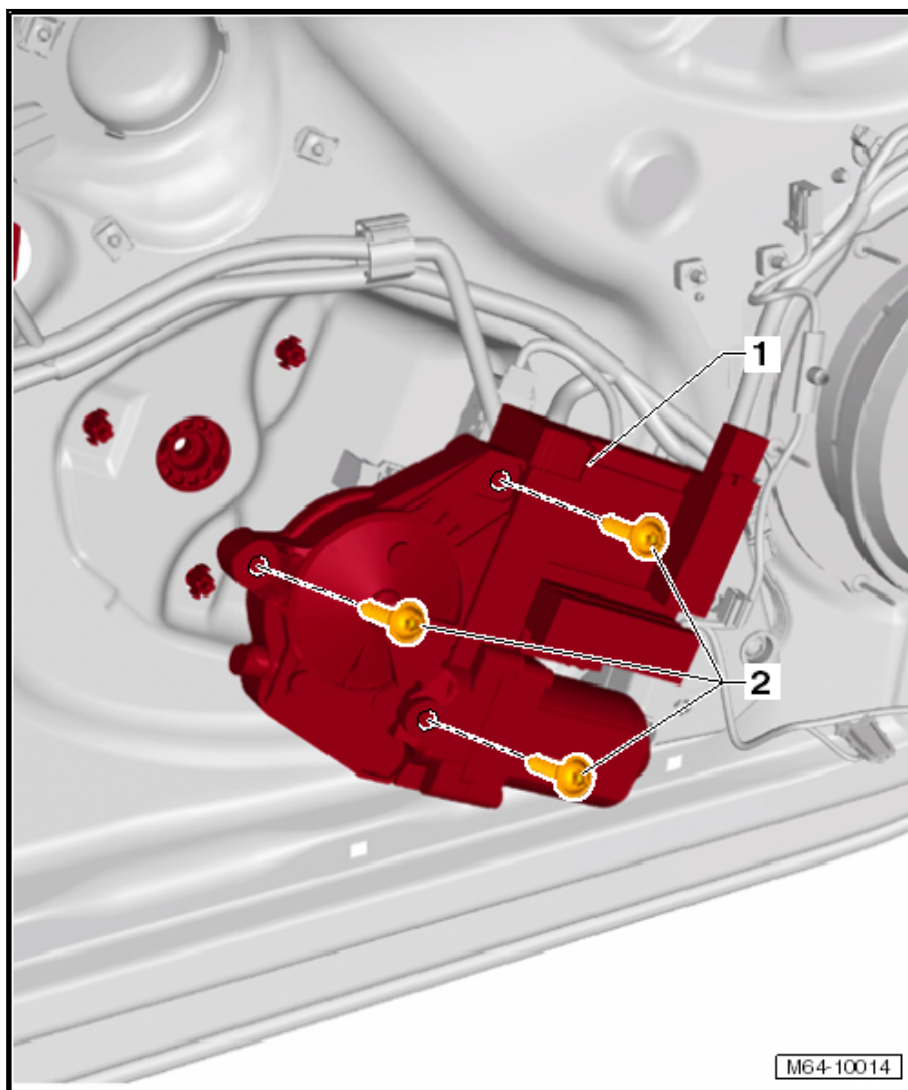
- Disconnect the connector on the window regulator motor with the control module -1-.
- Remove the window regulator motor with the control module -1- from the door.

## 2.4.2 Installing



### WARNING

*The additional functions and pinch protection must be coded when a new window regulator motor (door control module) is installed.*



- Install the window regulator motor -1- and pull door window up and down so that splines are located better between motor and cable drum.

Bolt tightening specifications -2-: 3.5 Nm

- Connect the connectors -3-.







- A new window regulator motor must be coded. Refer to  
⇒ Electrical Equipment; Rep. Gr. 97 ; Wires, Control Modules .
- Raise and lower the window as far as the stops two times.  
By doing this, window regulator motor is initialized and ready for operation and activates pinch protection.
- Continue by performing the steps used in removal in reverse order.

## 2.5 Window Guide, Removing and Installing

⇒ [“2.5.1 Window Guide, Removing”, page 255](#)

⇒ [“2.5.2 Installing”, page 256](#)

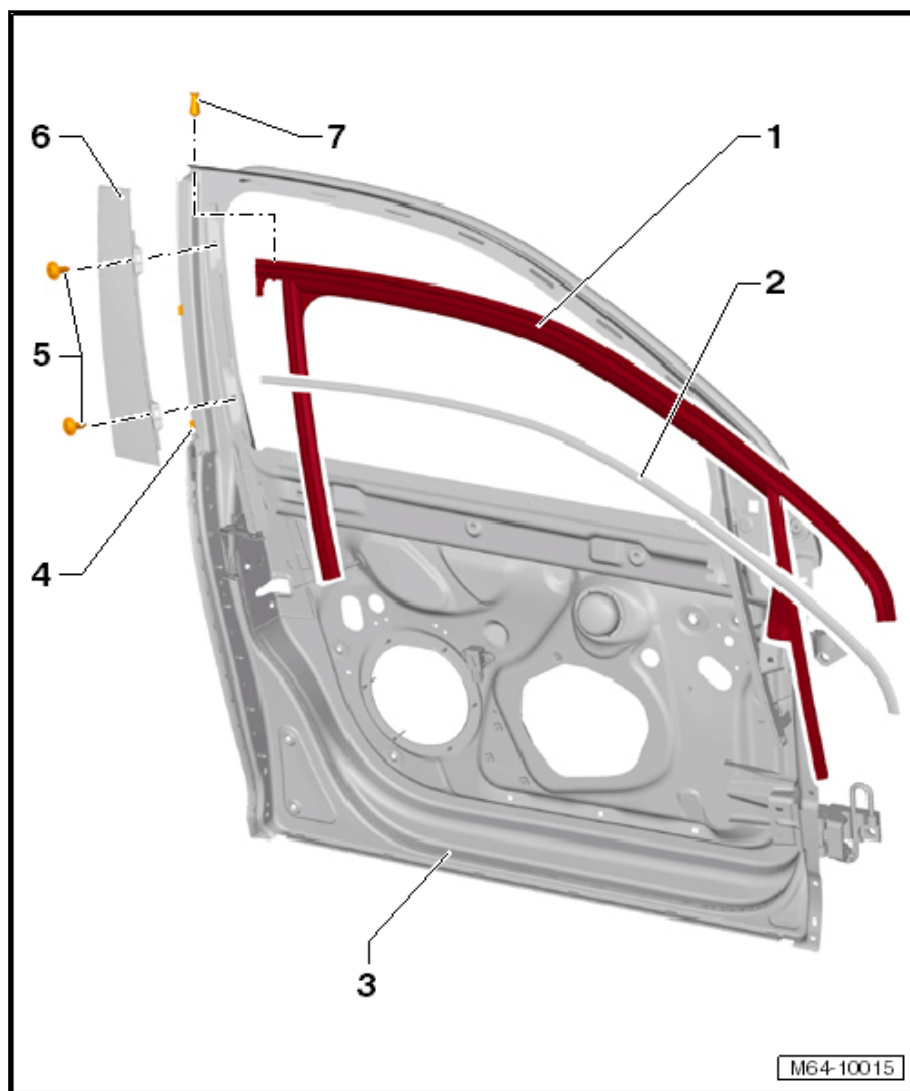


### Note

- ◆ *The following describes removing and installing the right window guide. Removing and installing the left window guide is identical.*
- ◆ *The removal and installation is depicted without the outer door panel.*
- ◆ *Do not bend window shaft seal when removing!*

### 2.5.1 Window Guide, Removing





- Remove the exterior rearview mirror. Refer to [“2.9 Exterior Rearview Mirror, Removing and Installing”, page 290](#).
- Remove the outer door panel. Refer to [“1.8 Outer Door Panel, Removing and Installing”, page 93](#).

#### Vehicles with window guide trim molding

- Remove the bolt -7- and window guide trim molding -2-. Refer to [“3 Window Guide Trim Molding, Removing and Installing”, page 258](#).

#### All Vehicles

- Remove the two bolts -5- and remove the trim -6- from the door -3-.

Make sure the rubber spacers -4- are not lost.

- Remove the window guide -1- from all around the window frame -4- and pull it upward out of window shaft.

## 2.5.2 Installing

Install in reverse order of removal.

Bolt tightening specification: -5- 2 Nm





Bolt tightening specification: -7- 1.5 Nm

- A function test must be performed before door trim is installed.



**Note**

*While installing window guide, make sure it is seated evenly (wind noise).*





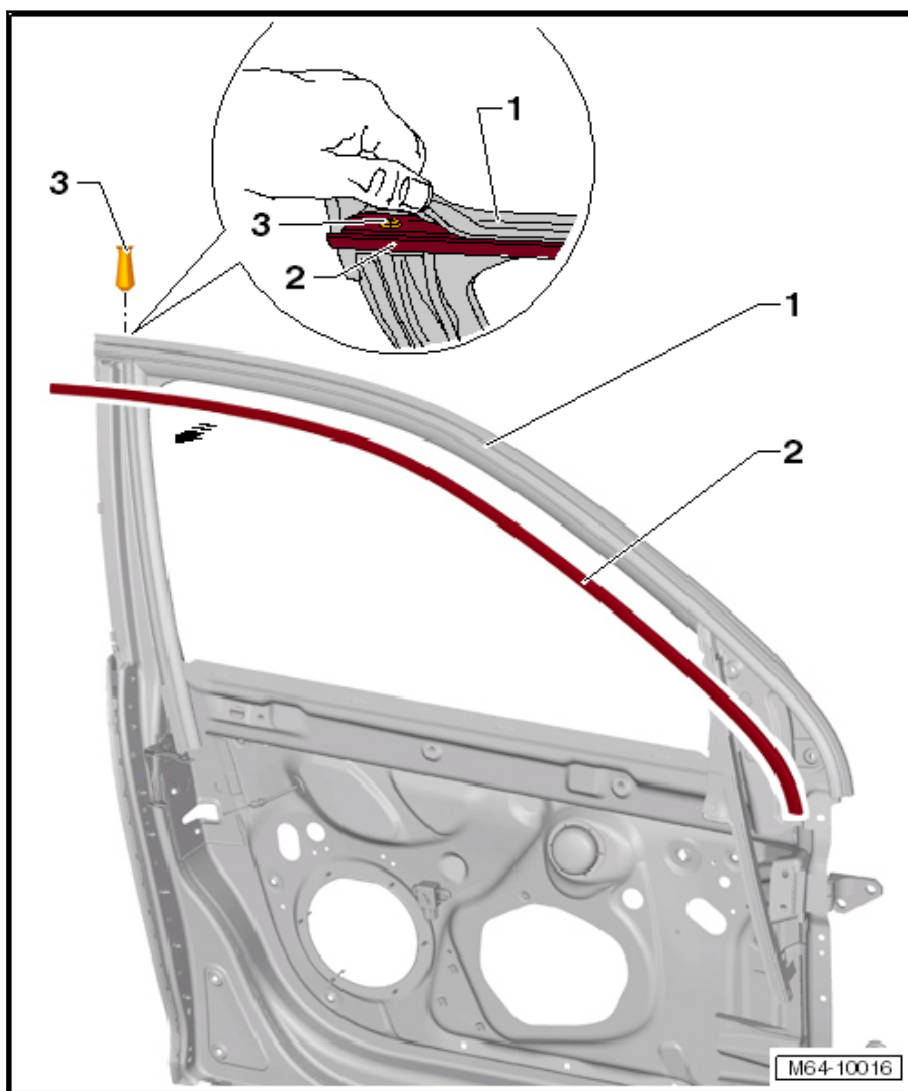


### 3 Window Guide Trim Molding, Removing and Installing

⇒ "3.1 Removing", page 258

⇒ "3.2 Installing", page 258

#### 3.1 Removing



- Pull the rear of the window guide -1- to the side slightly.
- Remove the bolt -3-.



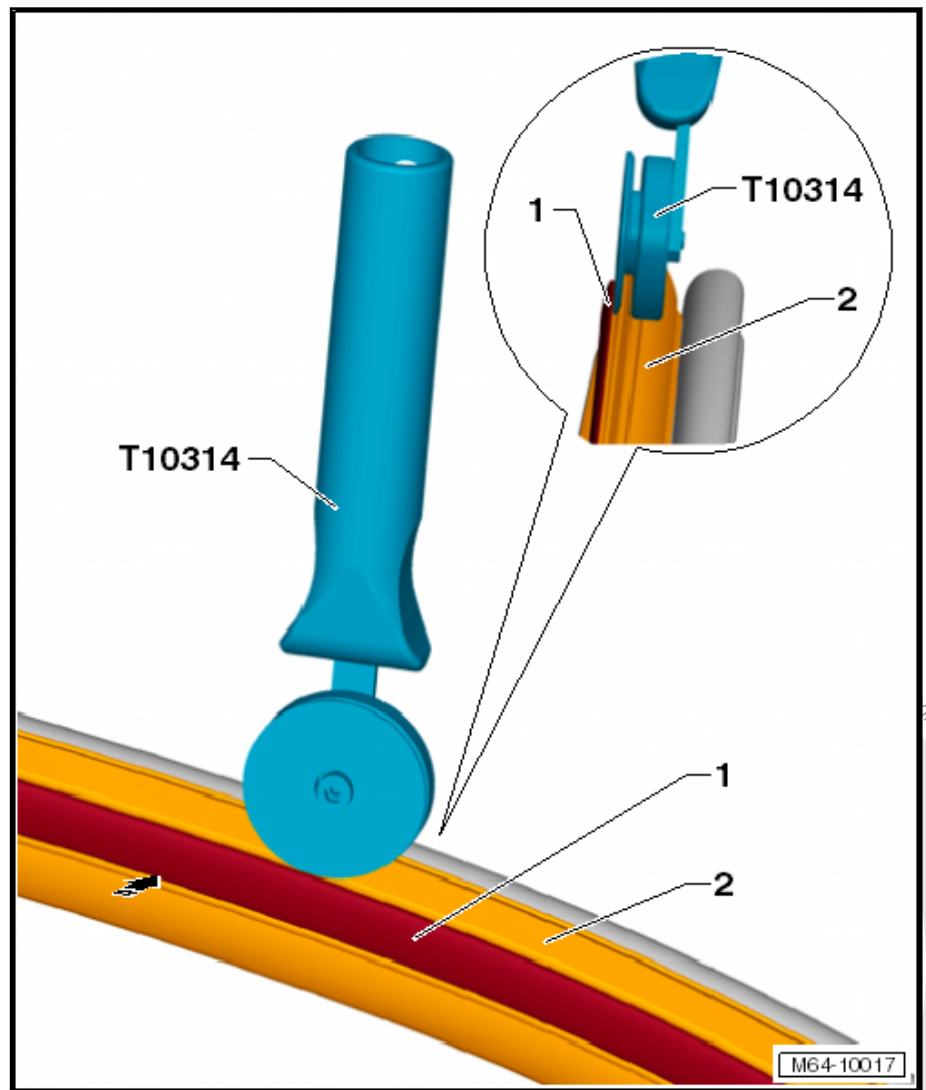
#### Note

*A expanding rivet may be installed rather than the bolt -3-.*

- Remove the trim molding -2- from the window guide -1- in the -direction of the arrow-.

#### 3.2 Installing





- Spray the window guide -2- with a soap and water solution.
- Press the trim molding -1- by hand evenly in the -direction of the arrow- into the window guide -2-.
- Then press the trim molding -1- into the window guide mount -2- using the Window Strip Roller - T10314- .

Perform the rest of the installation in the reverse order of removal.

Tightening specification: trim molding screw 1.5 Nm





## 4 Window Regulator, Removing and Installing

⇒ [“4.1 Removing”, page 260](#)

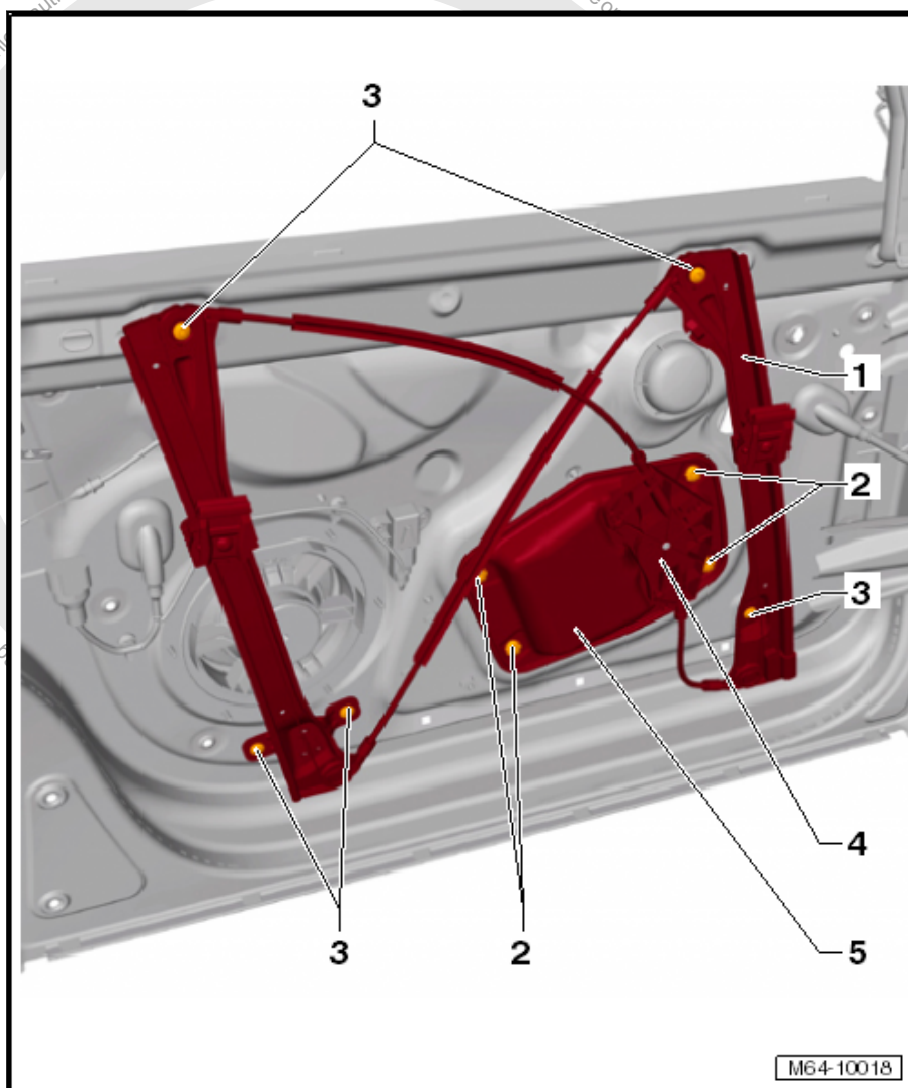
⇒ [“4.2 Installing”, page 261](#)



### Note

*Removing and installing is described only for the right window regulator. Removing and installing the left window regulator is identical.*

### 4.1 Removing



- Remove side impact protection. Refer to ⇒ [“1.20 Overview - Side Impact Protection”, page 113](#) .
- Remove the door window. Refer to ⇒ [“2.3 Door Window, Removing and Installing”, page 249](#) .





**Caution**

- ◆ *Turn off the ignition and all electrical equipment.*
- ◆ *Remove the ignition key.*

- Remove the bolts -2- from the mounting plate -5-.
- Remove the mounting plate -5- just until the connector on the window regulator motor is accessible.
- Disconnect the connector on the window regulator motor.
- Remove the bolts -3- on the window regulator.
- Remove the window regulator -1- with the drive motor -4- and mounting plate -5- for the window regulator motor from the door inner panel.

## 4.2 Installing

Install in reverse order of removal.

Tightening specification: bolts -2 and 3- 8 Nm

A function test must be performed before outer door plate is installed.







## 5 Rear Door Window

⇒ [“5.1 Tools”, page 262](#)

⇒ [“5.2 Overview - Rear Door Window”, page 263](#)

⇒ [“5.3 Door Window, Removing and Installing”, page 264](#)

⇒ [“5.4 Outer Window Shaft Seal, Removing and Installing”, page 265](#)

⇒ [“5.5 Overview - Window Guide”, page 266](#)

⇒ [“5.6 Window Guide, Removing and Installing”, page 267](#)

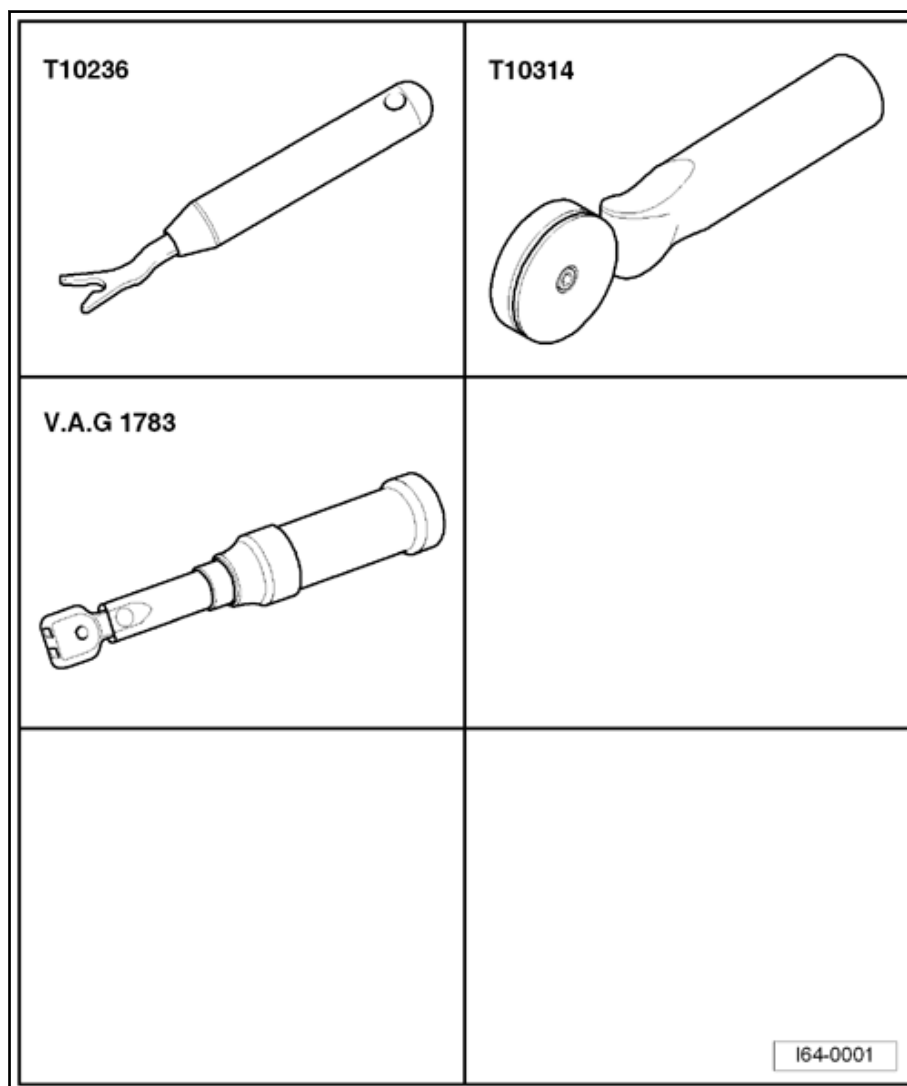
⇒ [“5.7 Fixed Door Window, Removing and Installing”, page 270](#)

⇒ [“5.8 Window Guide Trim Molding, Removing and Installing”, page 272](#)

⇒ [“5.9 Window Regulator Motor, Removing and Installing”, page 274](#)

### 5.1 Tools

Special tools and workshop equipment required



◆ Window Release Tool - T10236-





- ◆ Roller - T10314-
- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-

## 5.2 Overview - Rear Door Window



### Note

The illustration shows the right side. The left side is identical.

#### 1 - Door Window

- ❑ Removing and Installing. Refer to ⇒ ["5.3 Door Window, Removing and Installing", page 264](#).

#### 2 - Fixed Door Window

- ❑ Component of window guide
- ❑ Removing and Installing. Refer to ⇒ ["5.7 Fixed Door Window, Removing and Installing", page 270](#).

#### 3 - Window Guide

- ❑ Component of fixed door window
- ❑ Removing and Installing. Refer to ⇒ ["5.6 Window Guide, Removing and Installing", page 267](#).

#### 4 - Rear Trim

- ❑ Removing. Refer to ⇒ [page 268](#).

#### 5 - Window Regulator Guide

#### 6 - Spreader Plug

- ❑ Always replace when performing assembly work on the door window

#### 7 - Expanding Pin

- ❑ Always replace when performing assembly work on the door window

#### 8 - Cap

#### 9 - Window Regulator Motor

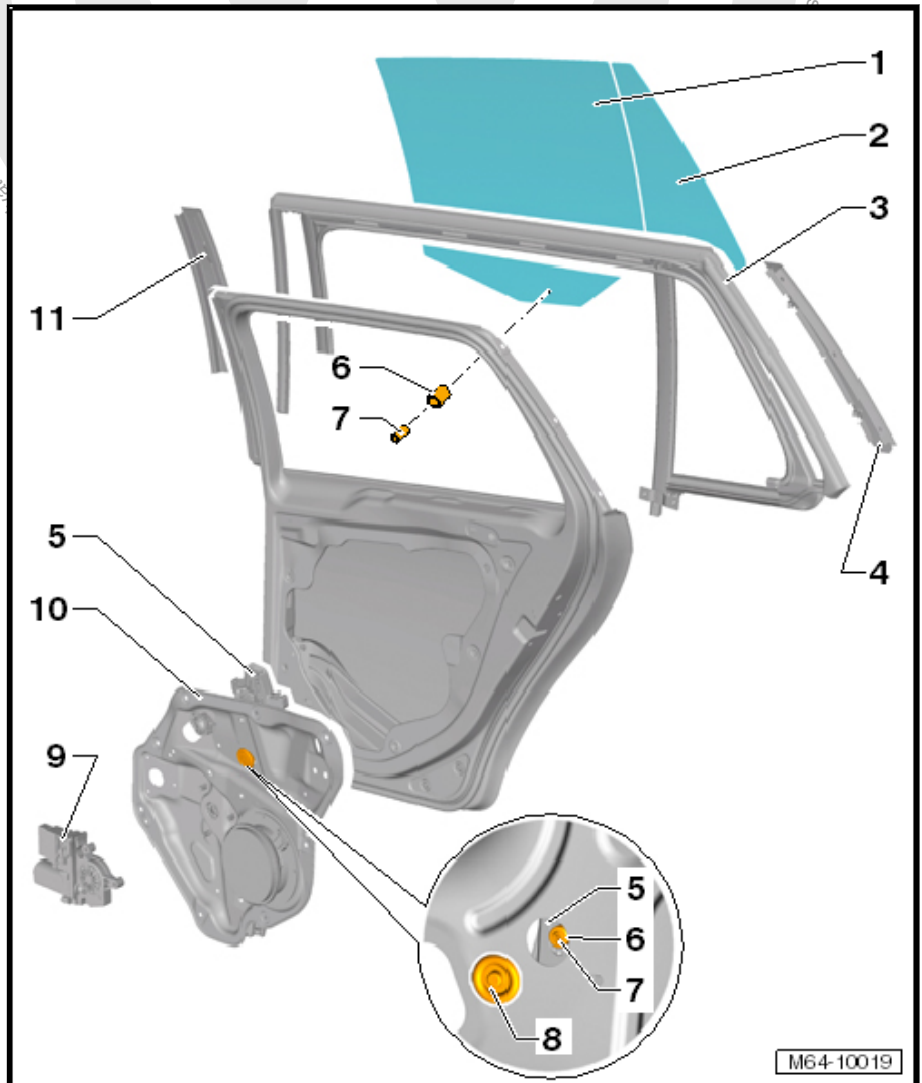
- ❑ Removing and Installing. Refer to ⇒ ["5.9 Window Regulator Motor, Removing and Installing", page 274](#).

#### 10 - Subframe

- ❑ Removing and Installing. Refer to ⇒ ["2.3 Subframe, Removing and Installing", page 138](#).

#### 11 - Front Trim

- ❑ Removing. Refer to ⇒ [page 264](#).







## 5.3 Door Window, Removing and Installing

⇒ "5.3.1 Door Window, Removing", page 264

⇒ "5.3.2 Door Window, Installing", page 265

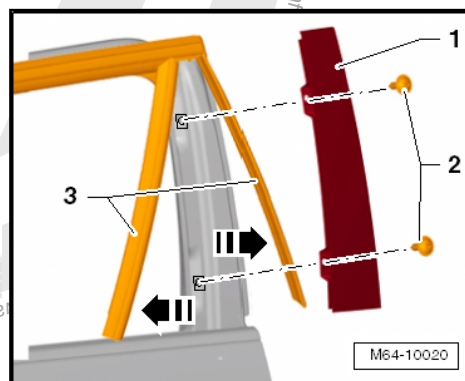


### Note

*The following describes removing and installing the right rear door window. Removing and installing the left rear door window is identical.*

### 5.3.1 Door Window, Removing

- Remove the rear door trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Door Trim Panels .
- Lower the door window completely.
- Remove the window guide -3- from the door -arrow-.
- Remove the bolts -2- and the front trim -1-.



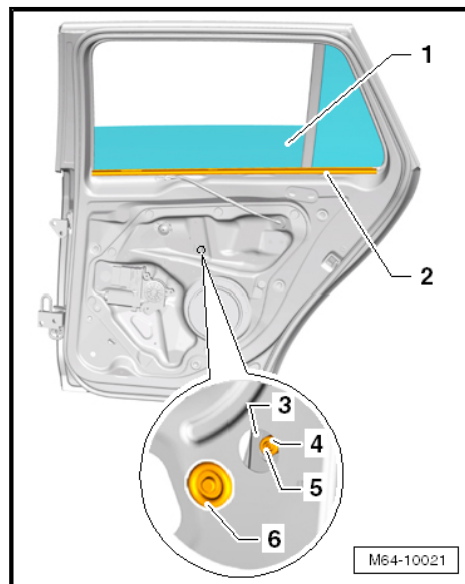
- Remove the cover cap -6-.
- Raise the door window until the spreader pin -5- and spreader plug -4- are accessible in the window regulator opening.



### Note

*If the step is not possible due to a malfunction in the window regulator, the motor can be removed to slide the window closed.*

- Install a 5 mm bolt (approximately 70 mm long) in the expanding pin -5-.
- Remove the spreader pin from the spreader plug -4- with the bolt.
- Install an 8 mm bolt (approximately 80 mm long) into the spreader plug -4-.



### Note

*When screwing the bolt into spreader plug, do not use excessive force on the plug otherwise it may fall inside into the door.*

- Pull the spreader plug -4- out of the clamping bracket -3- and out of the door window.
- Remove the inner shaft seal -2- from the inner door panel.





- Pull the door window upward -arrow- out of the window shaft.



### 5.3.2 Door Window, Installing



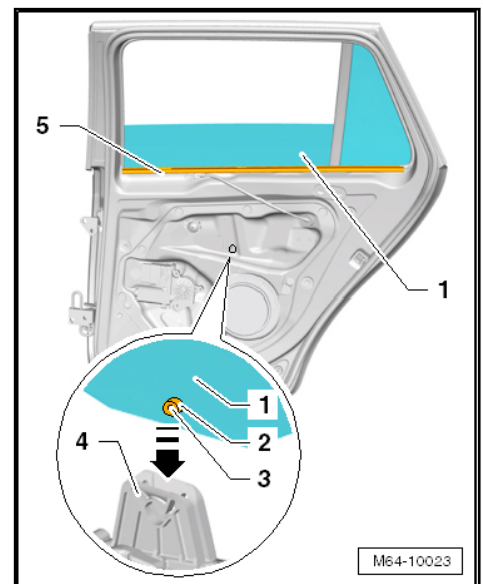
#### Note

- ◆ *Spreader plug and spreader pin must always be replaced when performing assembly work on door window.*
- ◆ *Before inserting spreader plug -3- and spreader pin -4-, check window -1- for damage.*
- With the door window -1- removed, insert the spreader plug -3- so it is centered.
- Press the expanding pin -2- flush into the spreader plug -3-.
- Guide the door window -1- into the door and place the door window in the window regulator guide mount -4-.
- Using light pressure from above -arrow-, engage the door window -1- in the window regulator guide mount -4-.

Perform the rest of the installation in the reverse order of removal.

Tightening specification: front trim bolt 2 Nm

A function test must be performed before door trim is installed.



### 5.4 Outer Window Shaft Seal, Removing and Installing

⇒ [“5.4.1 Removing”, page 265](#)

⇒ [“5.4.2 Installing”, page 266](#)

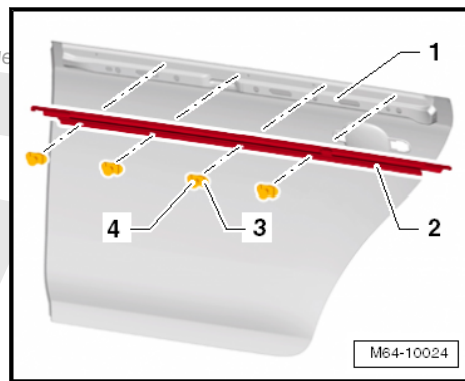
#### 5.4.1 Removing

- Remove the subframe. Refer to ⇒ [“2.3 Subframe, Removing and Installing”, page 138](#).





- Using a small screwdriver, pry the spreader pin -4- out of the clip -3-.
- Remove the four clips -3- from the window recess seal -2-.
- Remove the window shaft seal -2- upward from the outer door panel -1-.



## 5.4.2 Installing

Install in reverse order of removal.

## 5.5 Overview • Window Guide



### Note

*The illustration shows the right side. The left side is identical.*





#### 1 - Bolt

- ☐ Only on window guide trim molding
- ☐ An expanding rivet may also be installed
- ☐ 1.5 Nm

#### 2 - Window Guide Trim Molding

- ☐ Depends on equipment
- ☐ Removing and Installing. Refer to ➤ ["5.8 Window Guide Trim Molding, Removing and Installing", page 272](#).

#### 3 - Window Guide

- ☐ Removing and Installing. Refer to ➤ ["5.6 Window Guide, Removing and Installing", page 267](#).

#### 4 - Door Window

- ☐ Removing and Installing. Refer to ➤ ["5.7 Fixed Door Window, Removing and Installing", page 270](#).

#### 5 - Clip

#### 6 - Clip

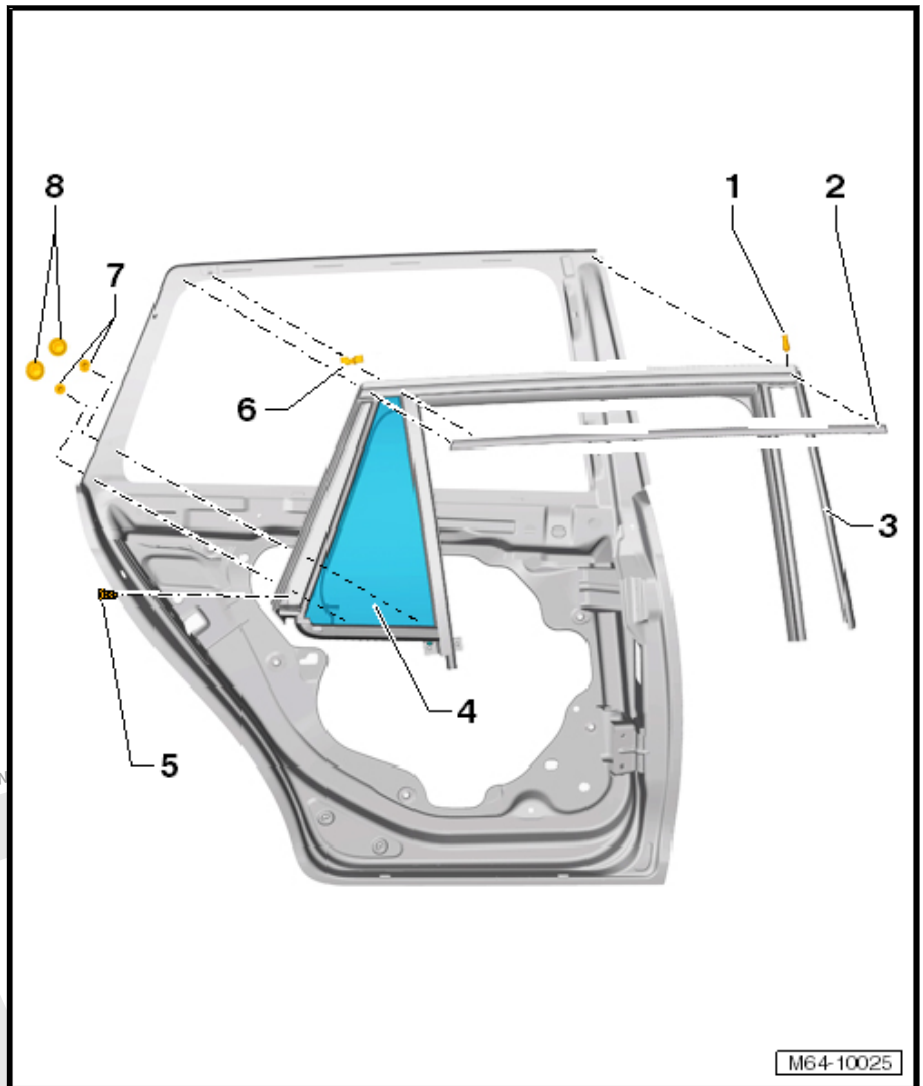
- ☐ Always replacing during installation work

#### 7 - Bolt

- ☐ Quantity: 2
- ☐ 5.5 Nm

#### 8 - Cap

- ☐ Quantity: 2



### 5.6 Window Guide, Removing and Installing

➤ ["5.6.1 Removing", page 267](#)

➤ ["5.6.2 Installing", page 269](#)



#### Note

The following describes removing and installing the right window guide. Removing and installing the left window guide is identical.

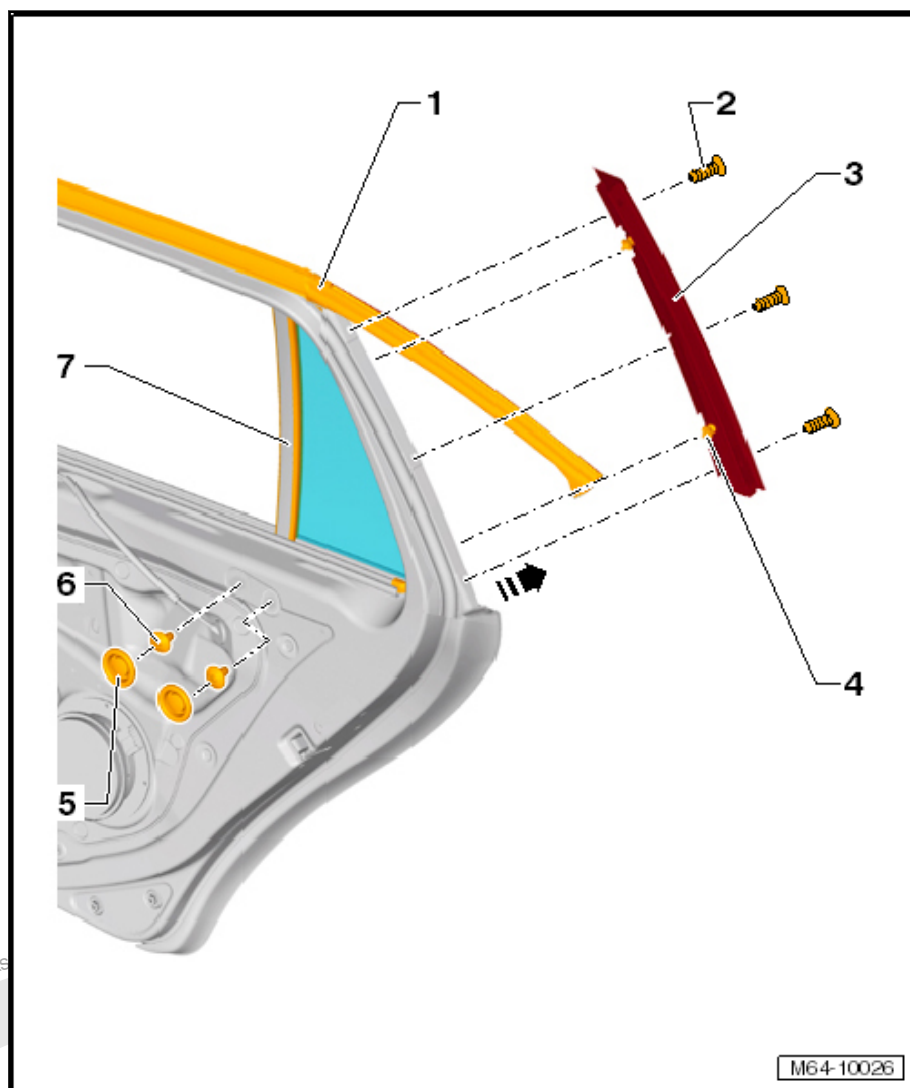
#### 5.6.1 Removing

- Remove the door window. Refer to ➤ ["5.3 Door Window, Removing and Installing", page 264](#).



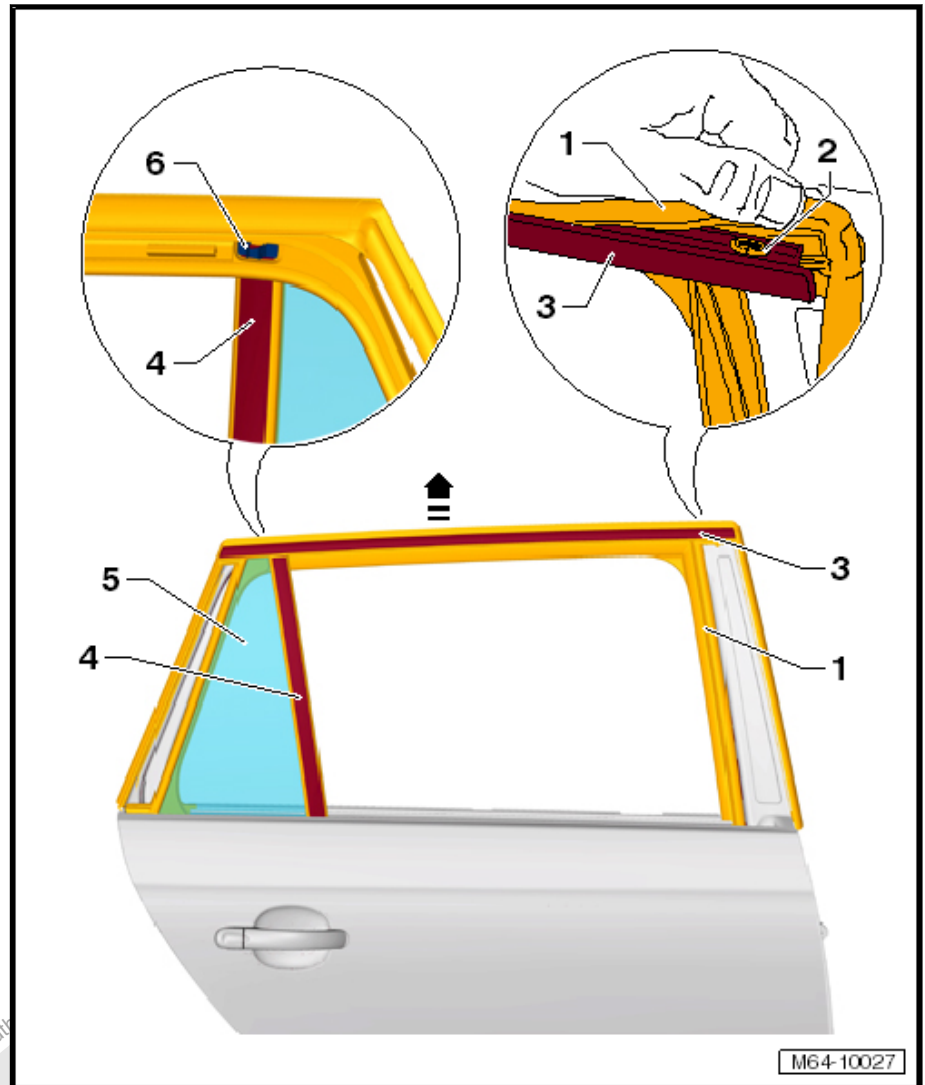


- Remove the outer shaft strip. Refer to ⇒ [“2.9 Outer Window Shaft Seal, Removing and Installing”, page 147](#).



- Pry out both of the cover caps -5-.
- Remove both screws -6- from the center brace -7-.
- Remove the window guide rubber -1- from the door in the rear area.
- Remove the bolts -2- and pull the rear trim -3- with the clips -4- off in the direction of the -arrow-.





#### Vehicles with window guide trim molding

- Pull the front of the window guide -1- slightly to the side.
- Remove the screw -2- from the window guide trim molding -3-.



#### Note

*An expanding rivet can be installed instead of the bolt -2-.*

#### All Vehicles

- Loosen the window guide -1- with the door window -5- from the door window frame at the inside and outside.
- Pry the clip -6- out of the window frame.
- Remove the entire window guide -1- with the fixed door window -5- and center brace -4- upward in the direction of the -arrow- out of the door.

### 5.6.2 Installing

Perform the rest of the installation in the reverse order of removal.





Use a new clip when installing the center brace.

Tightening specification: rear trim screw 2 Nm

Tightening specification: center brace screws 6 Nm

Tightening specification: trim molding screw 1.5 Nm



#### Note

*While installing the window guide, make sure it is seated evenly to prevent wind noise.*

## 5.7 Fixed Door Window, Removing and Installing

⇒ ["5.7.1 Removing", page 270](#)

⇒ ["5.7.2 Installing", page 271](#)



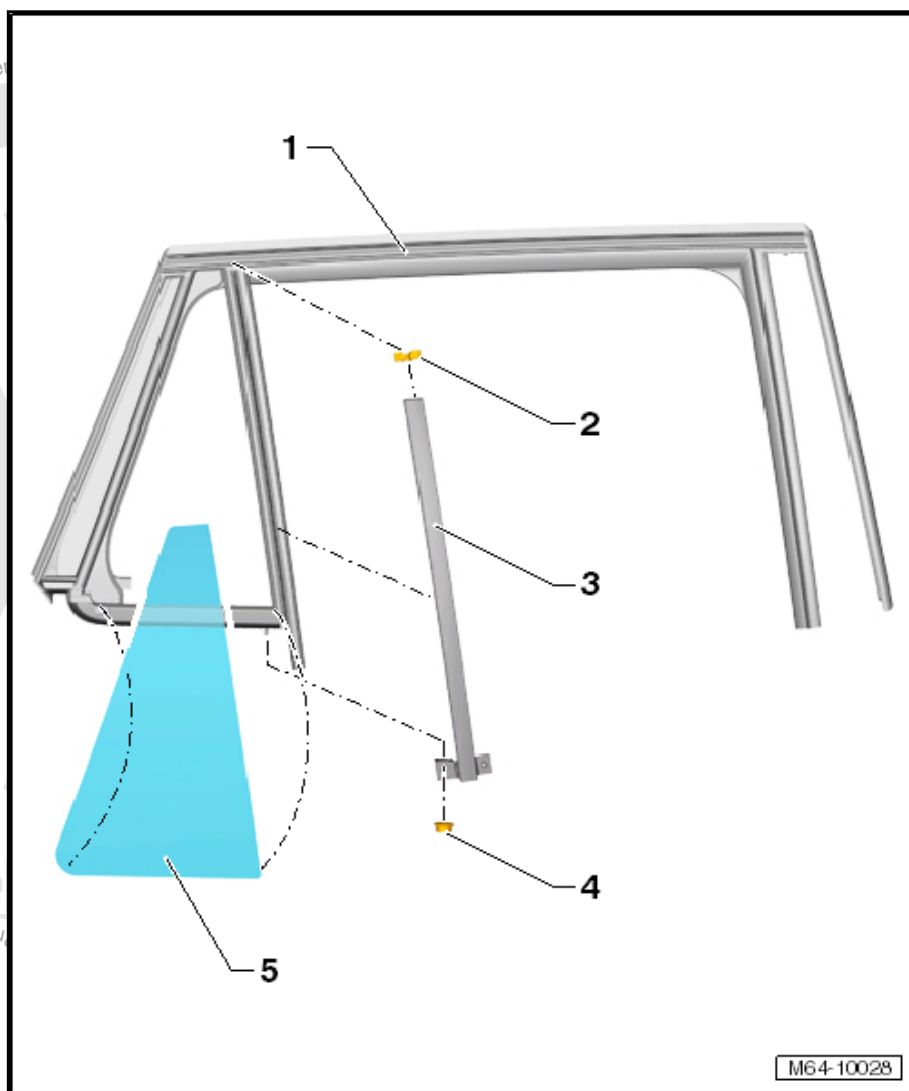
#### Note

*The following describes removing and installing the right door window. Removing and installing the left door window is identical.*

### 5.7.1 Removing

- Remove the window guide. Refer to ⇒ ["5.6 Window Guide, Removing and Installing", page 267](#).





- Remove the nuts -4-.
- Remove the center brace -3- from the clip -2- and the window guide -1-.
- Remove the fixed door window -5- from the window guide -1-.

### 5.7.2 Installing

To install, spray the window guide with soapy water.

Perform the rest of the installation in the reverse order of removal.

Use a new clip when installing the center brace.

Nut -4- tightening specification: 5 Nm



#### Note

*While installing fixed door window with window guide, make sure it is seated evenly (wind noise).*



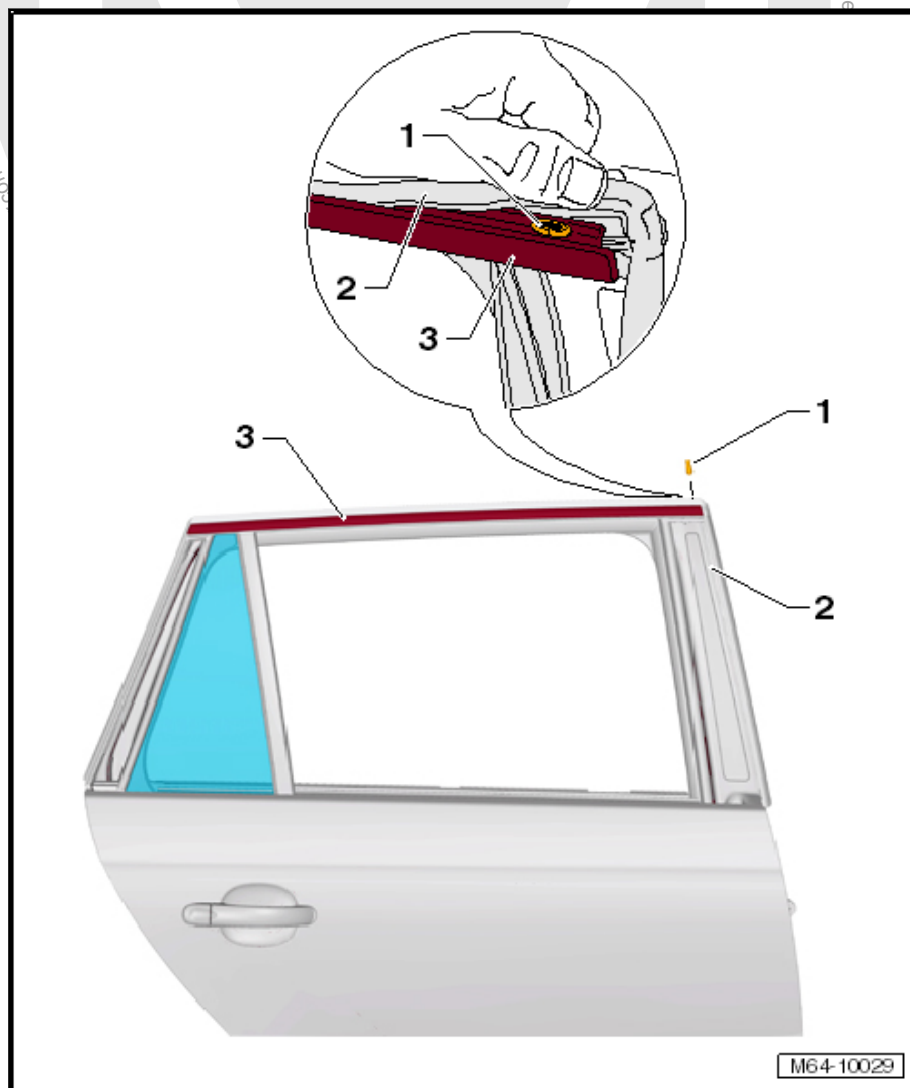


## 5.8 Window Guide Trim Molding, Removing and Installing

⇒ "5.8.1 Removing", page 272

⇒ "5.8.2 Installing", page 272

### 5.8.1 Removing



- Pull the front of the window guide -2- slightly to the side.
- Remove the screw -1- from the window guide trim molding -3-.



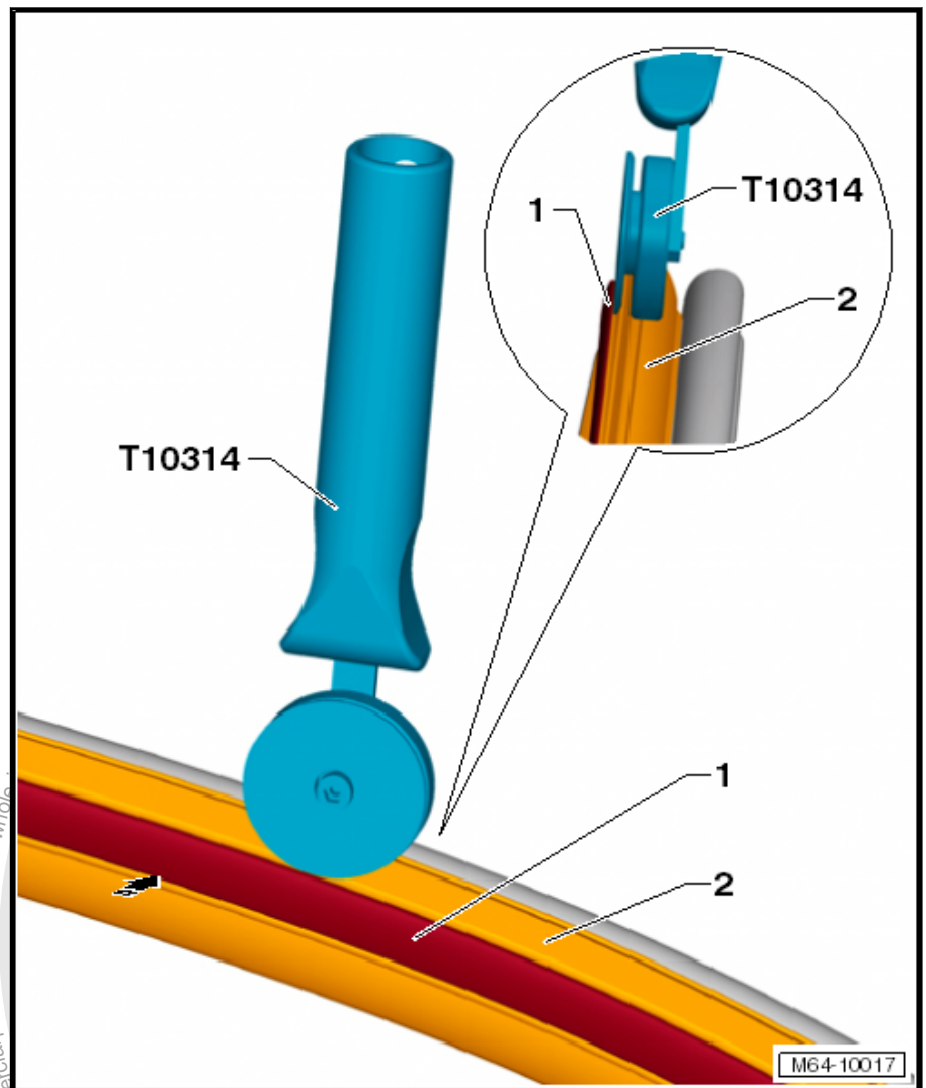
#### Note

*An expanding rivet can be installed instead of the bolt -1-.*

- Remove the trim molding -3- from the window guide -2-.

### 5.8.2 Installing





- Spray the window guide -2- with a soap and water solution.
- Press the trim molding -1- by hand evenly in the -direction of the arrow- into the window guide -2-.
- Then press the trim molding -1- into the window guide mount -2- using the Window Strip Roller - T10314.

Perform the rest of the installation in the reverse order of removal.

Tightening specification: trim molding screw 1.5 Nm





## 5.9 Window Regulator Motor, Removing and Installing

⇒ ["5.9.1 Removing", page 274](#)

⇒ ["5.9.2 Installing", page 275](#)

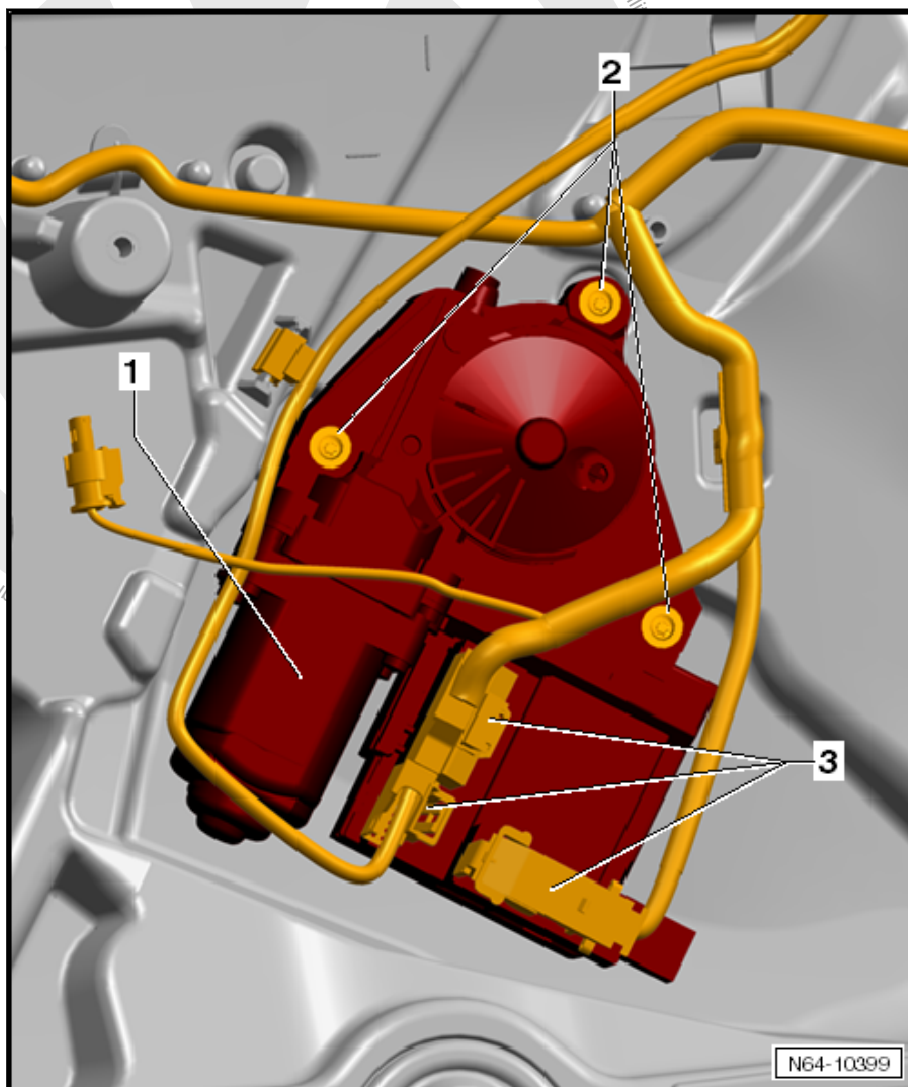


### Note

*The following describes removing and installing the right window regulator motor. Removing and installing the left window regulator motor is identical.*

### 5.9.1 Removing

- Remove the door trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Trim Panels/Noise Insulation; Door Trim Panels .



- Fix window using adhesive tape so that it does not slip down.
- Remove the three screws -2-.





**Caution**

- ◆ *Turn off the ignition and all electrical equipment.*
- ◆ *Remove the ignition key.*

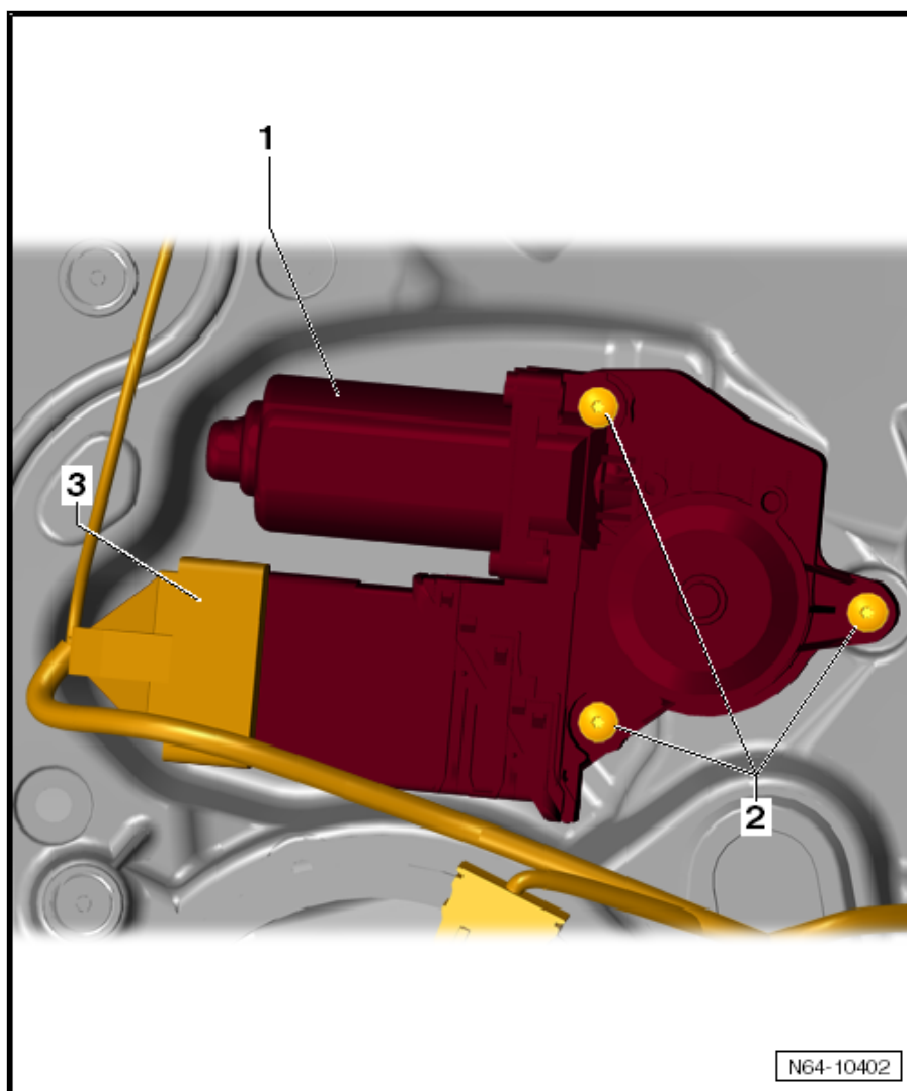
- Disconnect the connector on the window regulator motor with the control module -1-.
- Remove the window regulator motor with the control module -1- from the door.

## 5.9.2 Installing



**WARNING**

*The additional functions and pinch protection must be coded when a new window regulator motor (door control module) is installed.*







- Install the window regulator motor -1- and pull door window up and down so that splines are located better between motor and cable drum.
- Connect the connectors -3-.

Bolt tightening specifications -2-: 3.5 Nm

- A new window regulator motor must be coded. Refer to  
⇒ Electrical Equipment; Rep. Gr. 97 ; Wires, Control Modules .
- Raise and lower the window as far as the stops two times.  
By doing this, window regulator motor is initialized and ready for operation and activates pinch protection.
- Continue by performing the steps used in removal in reverse order.







## 66 – Exterior Equipment

### 1 Wheel Housing Liner

⇒ [“1.1 Tools”, page 277](#)

⇒ [“1.2 Front Wheel Housing Liner”, page 277](#)

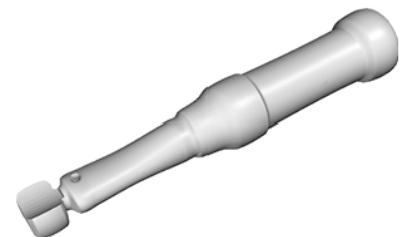
⇒ [“1.3 Rear Wheel Housing Liner”, page 281](#)

#### 1.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-

V.A.G 1783



W00-0990

#### 1.2 Front Wheel Housing Liner

⇒ [“1.2.1 Overview”, page 277](#)

⇒ [“1.2.2 Removing”, page 278](#)

⇒ [“1.2.3 Installing”, page 279](#)



##### Note

- ◆ The following describes removing and installing the left wheel housing liner. Removing and installing right wheel housing liner is identical.

- ◆ Depending on the model version, slight differences must be considered when removing and installing.

##### 1.2.1 Overview



##### Note

The illustration shows the left side. The right side is identical.





### 1 - Rear Section of the Wheel Housing Liner

- ☐ PP/EPDM material
- ☐ Removing. Refer to ⇒ ["1.2.2 Removing", page 278](#).
- ☐ Installing. Refer to ⇒ ["1.2.3 Installing", page 279](#).

### 2 - Bolt

- ☐ Quantity: 7
- ☐ Tightening specification: 2 Nm

### 3 - Wheel Housing Liner Front Section

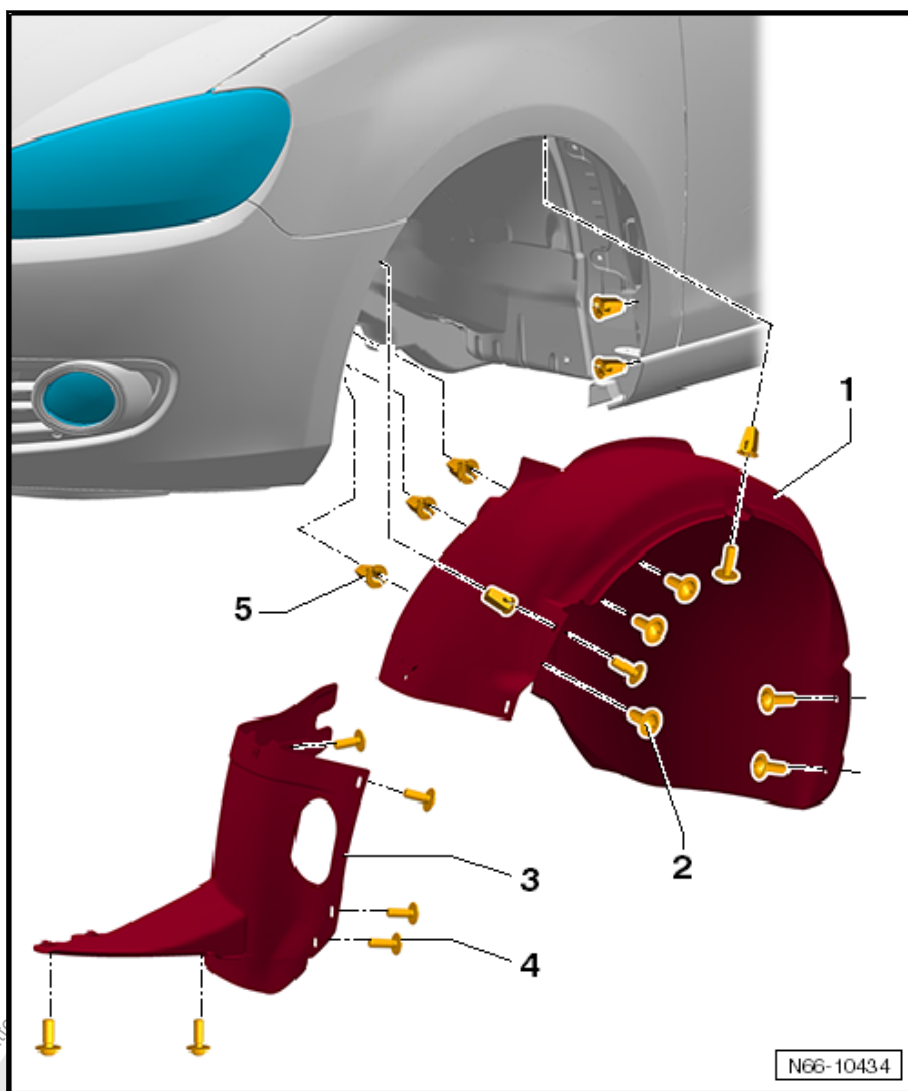
- ☐ Material - PP/EPDM

### 4 - Bolt

- ☐ Quantity: 6
- ☐ Tightening specification: 2 Nm

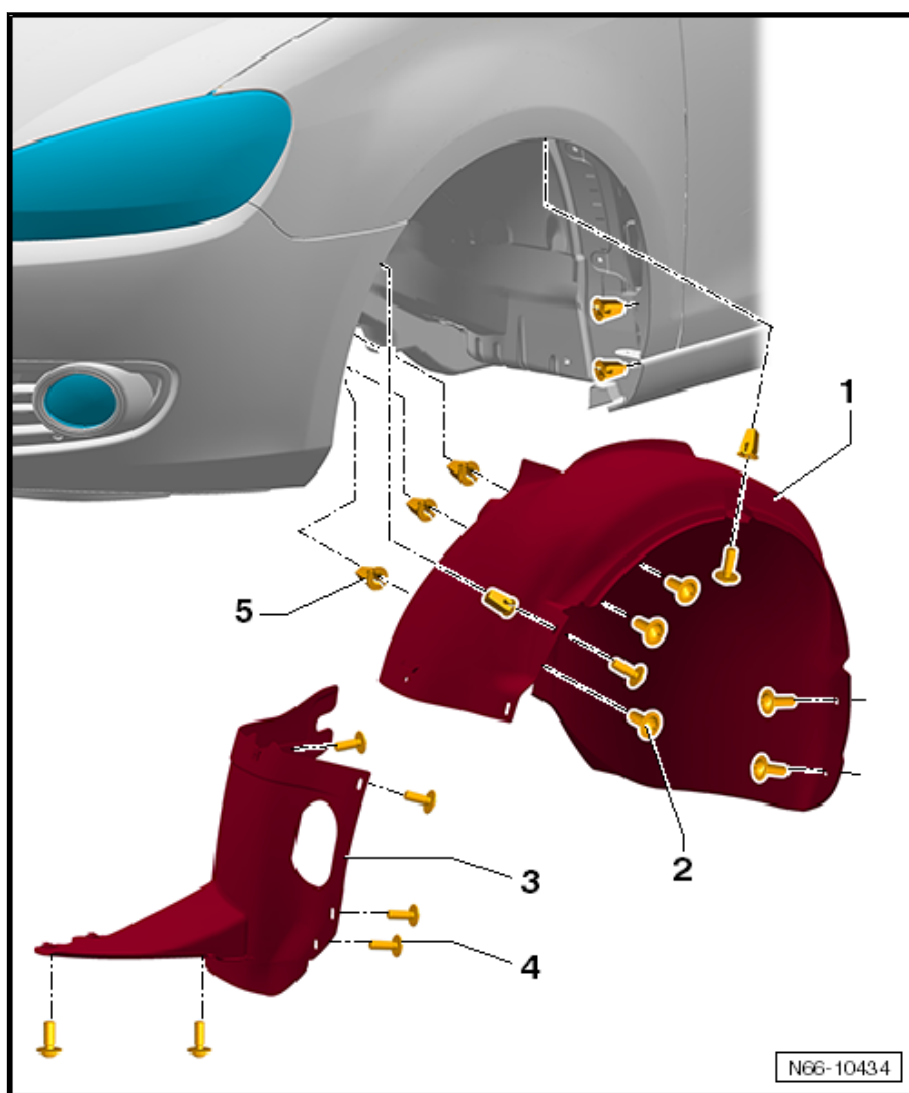
### 5 - Expanding Nut

- ☐ Quantity: 7



## 1.2.2 Removing





#### Rear Section of the Wheel Housing Liner

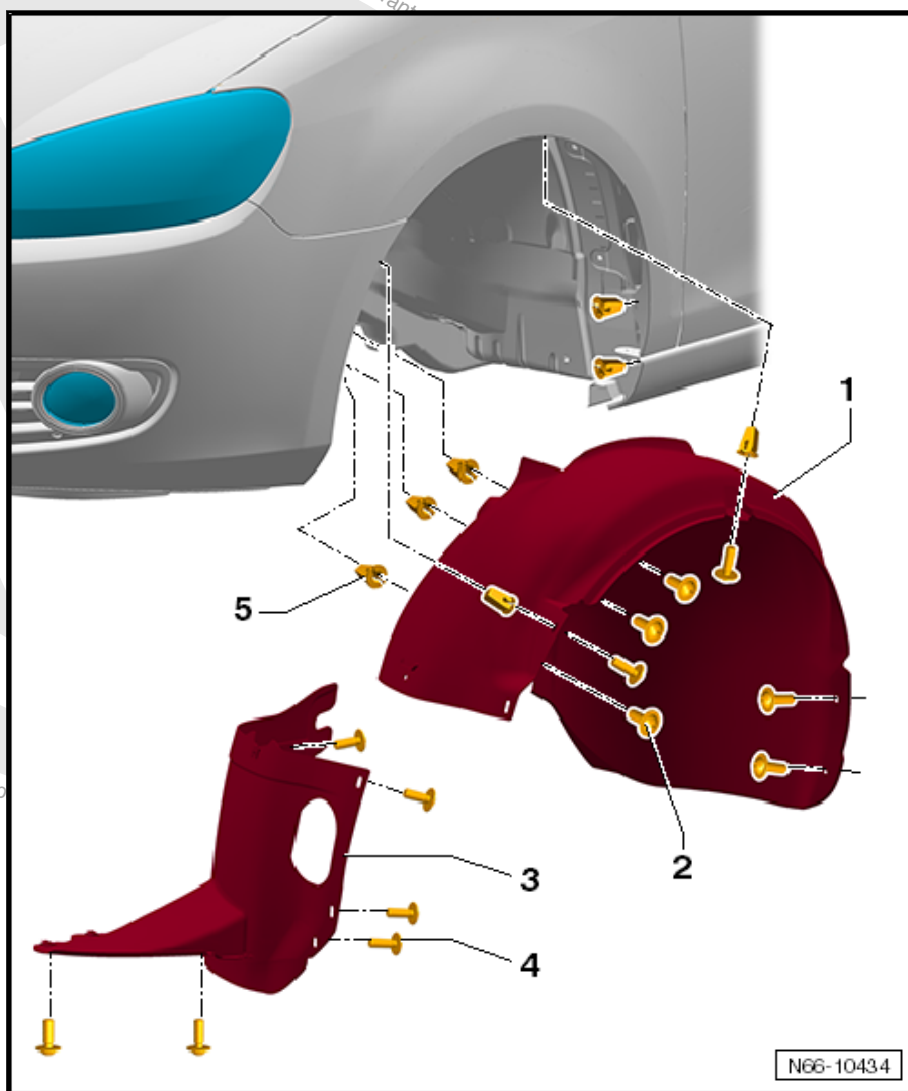
- Unbolt the wheel. Refer to ➤ Chassis; Rep. Gr. 44 ; Wheel Bolt Tightening Specifications
- Remove the screws -2-.
- Remove the rear part of the wheel housing liner -1- from the fender.

#### Wheel Housing Liner Front Section

- Remove the bolts -4-.
- Remove the bolts on the left side of the noise insulation. Refer to ➤ [“5.2 Overview - Noise Insulation”, page 22](#) .
- Remove the front section of wheel housing liner -3-.

### 1.2.3 Installing





#### Note

*Check the expanding nuts -5- for damage and replace if necessary.*

Installing the front part of the wheel housing liner -3- and the back part -1- is in reverse order of removal.

- Position the bolts -2- and -4- and tighten them to 2 Nm.
- Position the bolts on the left side of the noise insulation and tighten them to 2 Nm. Refer to [⇒ “5.2 Overview - Noise Insulation”, page 22](#).





## 1.3 Rear Wheel Housing Liner

⇒ ["1.3.1 Overview", page 281](#)

⇒ ["1.3.2 Removing", page 282](#)

⇒ ["1.3.3 Installing", page 282](#)



### Note

- ◆ The following describes the removal and installation of the left rear wheel housing liner. Removing and installing right rear wheel housing liner is derived accordingly from this.
- ◆ Depending on the model version, slight differences must be considered when removing and installing.

### 1.3.1 Overview



### Note

The illustration shows the left side. The right side is identical.

#### 1 - Rear Wheel Housing Liner

- ☐ Material - PP/EPDM
- ☐ Removing. Refer to ⇒ ["1.3.2 Removing", page 282](#).
- ☐ Installing. Refer to ⇒ ["1.3.3 Installing", page 282](#).

#### 2 - Bolt

- ☐ Quantity: 9
- ☐ Tightening specification: 2 Nm

#### 3 - Expanding Nut

- ☐ Quantity: 3

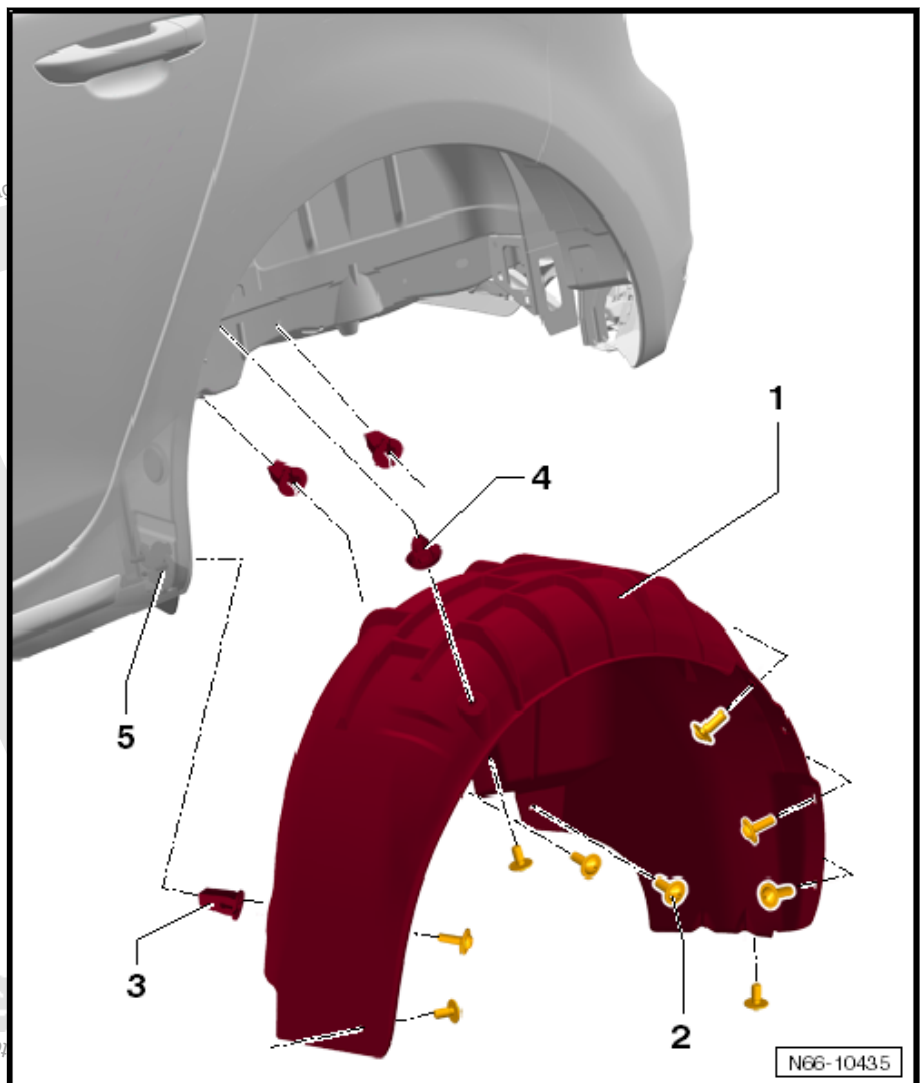
#### 4 - Expanding Nut

- ☒ Gas-tight

**! DANGER!**

**Check the gas-tight expanding nuts for damage and replace if necessary.**

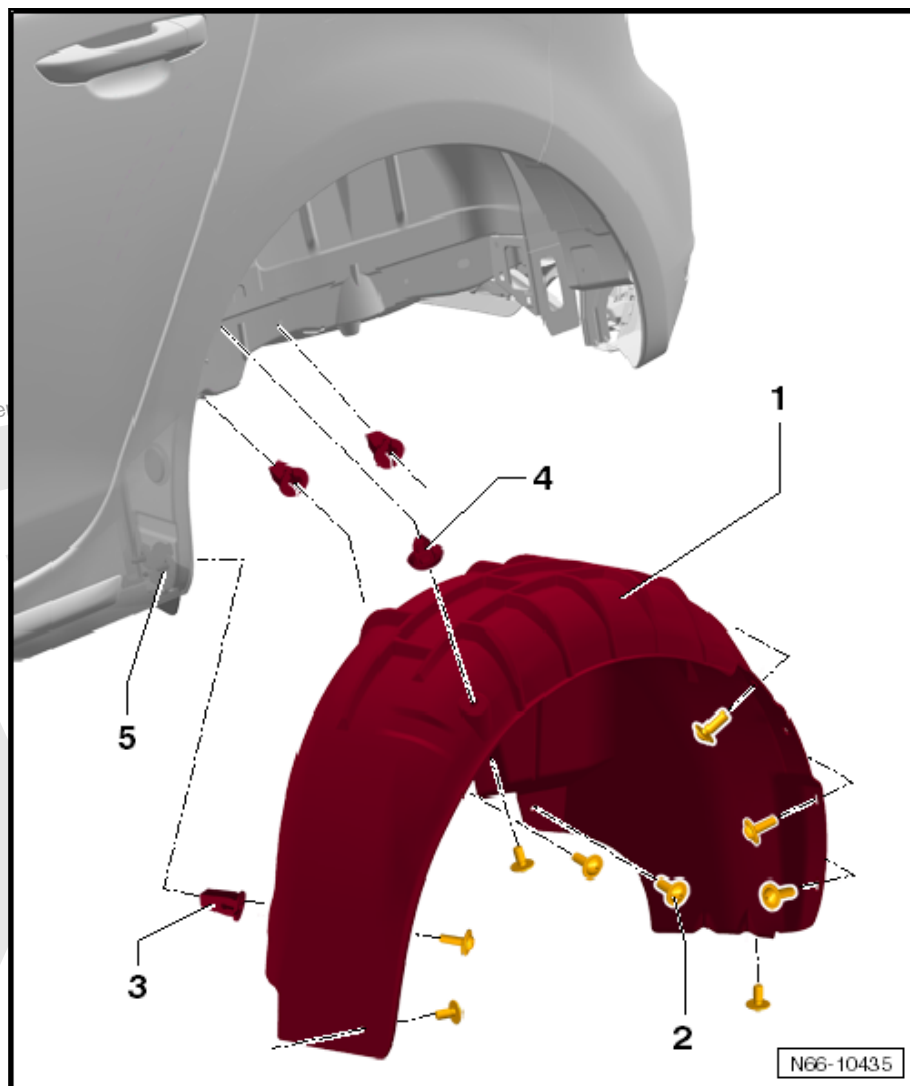
**The expanding nuts seal off the vehicle interior from exhaust gas and must always be replaced if they are damaged.**







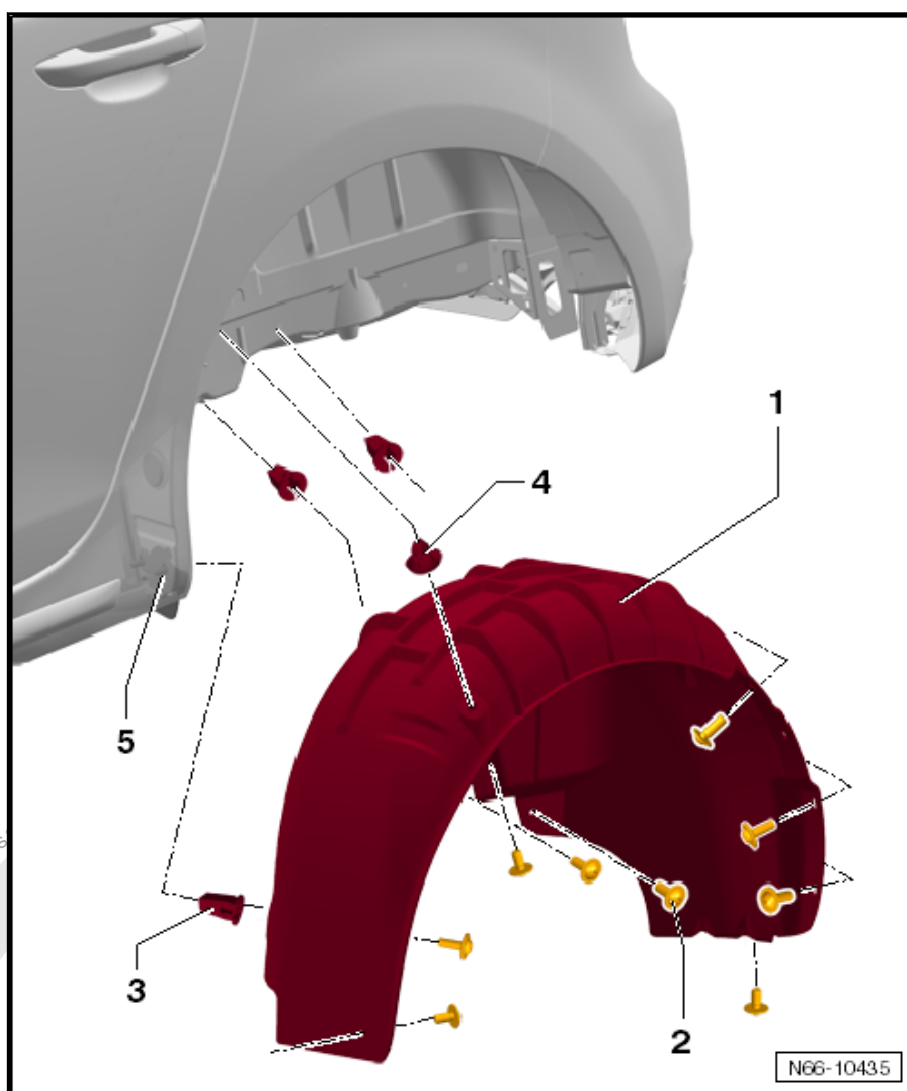
### 1.3.2 Removing



- Remove the wheel. Refer to ⇒ Chassis; Rep. Gr. 44 ; Wheel Bolt Tightening Specifications .
- Remove the screws -2-.
- Remove the back part of the wheel housing liner -1- from the wheel housing.

### 1.3.3 Installing





**i Note**

*Check the expanding nuts -3- for damage and replace if necessary.*



**DANGER!**

*Check the gas-tight expanding nuts -4- for damage and replace if necessary.*

*The expanding nuts seal off the vehicle interior from exhaust gas and must always be replaced if they are damaged.*

- Install the rear wheel housing liner -1- making sure it is not bent.
- Position the bolts -2- and tighten them to 2 Nm.
- Install the wheel. Refer to ⇒ Chassis; Rep. Gr. 44 ; Wheel Bolt Tightening Specifications .





## 2 Exterior Rearview Mirror

⇒ [“2.1 Tools”, page 284](#)

⇒ [“2.2 Overview - Exterior Rearview Mirror”, page 284](#)

⇒ [“2.3 Mirror Glass, Removing and Installing”, page 286](#)

⇒ [“2.4 Mirror Housing, Removing and Installing”, page 287](#)

⇒ [“2.5 Trim, Removing and Installing”, page 287](#)

⇒ [“2.6 Side Turn Signals, Removing and Installing”, page 288](#)

⇒ [“2.7 Entry Lamp, Removing and Installing”, page 289](#)

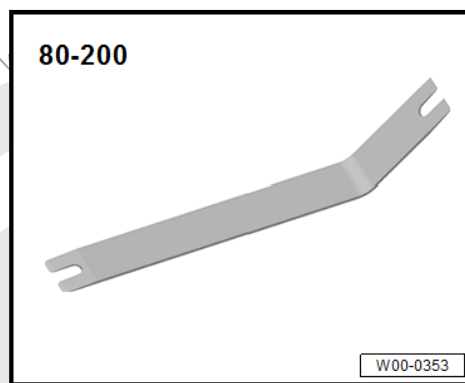
⇒ [“2.8 Adjusting Unit with Exterior Rearview Mirror Motor, Removing and Installing”, page 289](#)

⇒ [“2.9 Exterior Rearview Mirror, Removing and Installing”, page 290](#)

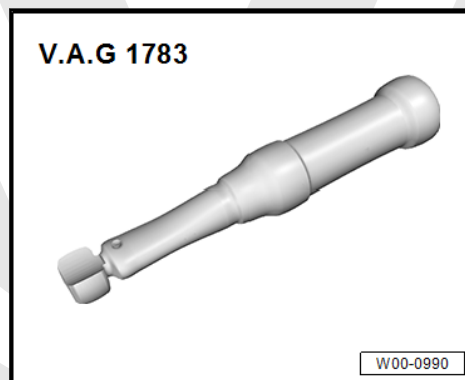
### 2.1 Tools

Special tools and workshop equipment required

◆ Pry Lever - 80-200-



◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



### 2.2 Overview - Exterior Rearview Mirror



Note

*The illustration shows the left side. The right side is identical.*



### 1 - Mirror Housing

- ☐ Material: ABS
- ☐ Removing and Installing. Refer to ➤ [“2.4 Mirror Housing, Removing and Installing”, page 287](#).

### 2 - Mirror Base

- ☐ Removing and Installing. Refer to ➤ [“2.9 Exterior Rearview Mirror, Removing and Installing”, page 290](#).

### 3 - Bolt

- ☐ Quantity: 3
- ☐ 8 Nm

### 4 - Bolt

- ☐ Quantity: 2
- ☐ 1 Nm

### 5 - Assembly Part

- ☐ Removing and Installing. Refer to ➤ [“2.6 Side Turn Signals, Removing and Installing”, page 288](#).

### 6 - Bolt

- ☐ Quantity: 2
- ☐ 1 Nm

### 7 - Side Turn Signal

- ☐ Removing and Installing. Refer to ➤ [“2.6 Side Turn Signals, Removing and Installing”, page 288](#).

### 8 - Trim

- ☐ Removing and Installing. Refer to ➤ [“2.5 Trim, Removing and Installing”, page 287](#).

### 9 - Bolt

- ☐ Quantity: 1
- ☐ 1 Nm

### 10 - Ambient Lighting

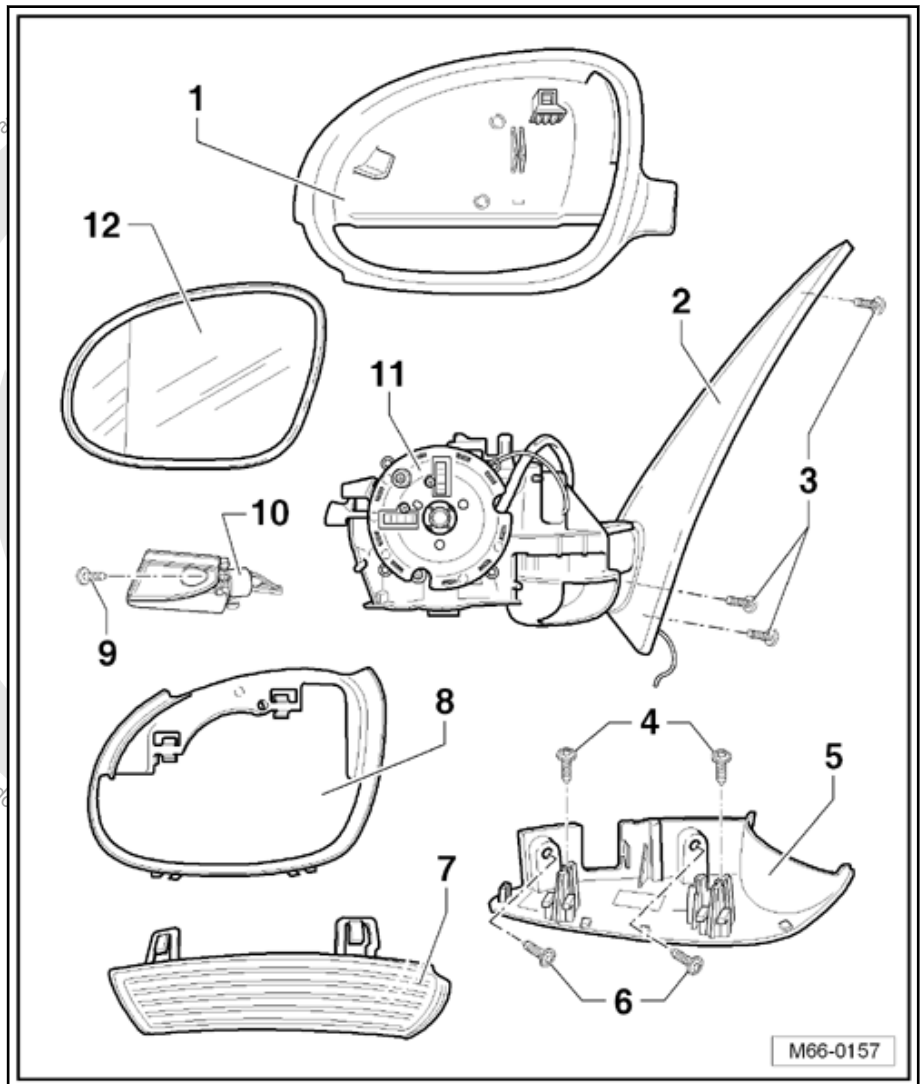
- ☐ Removing and Installing. Refer to ➤ [“2.7 Entry Lamp, Removing and Installing”, page 289](#).

### 11 - Adjusting Unit with Exterior Rearview Mirror Motor

- ☐ Removing and Installing. Refer to ➤ [“2.8 Adjusting Unit with Exterior Rearview Mirror Motor, Removing and Installing”, page 289](#).

### 12 - Mirror Glass

- ☐ Removing and Installing. Refer to ➤ [“2.3 Mirror Glass, Removing and Installing”, page 286](#).







## 2.3 Mirror Glass, Removing and Installing

⇒ "2.3.1 Removing", page 286

⇒ "2.3.2 Installing", page 286



### Note

The following describes the removal and installation of the left mirror glass. Removing and installing right mirror glass is derived accordingly from this.

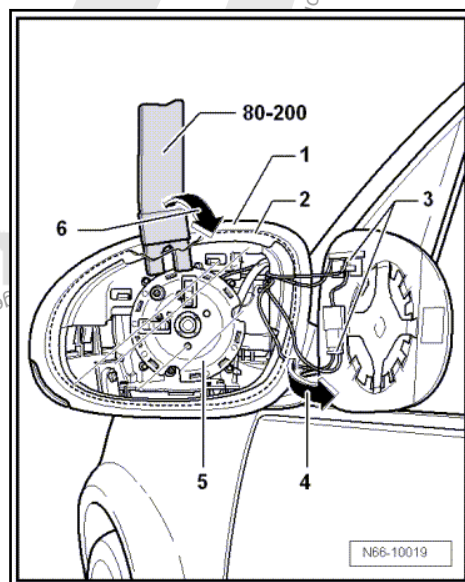
### 2.3.1 Removing



#### WARNING

***Wear protective eyewear and safety gloves when working.***

- Protect housing edge -1- from paint damage, for example, cover using fabric-reinforced adhesive tape.
- Press the bottom of the mirror glass -2- into the mirror housing -1-.
- Press mirror glass -2- using Pry Lever - 80 - 200- from the adjusting unit with motor -5- -arrow 6-.
- Swing the mirror glass -2- to the side -arrow 4- and disconnect the installed connector terminals -3- for electric dimming function and mirror heater from rear side of mirror glass -2-.



### 2.3.2 Installing

- Insert connector terminals to mirror glass.
- Press mirror glass at center onto adjusting unit with motor in housing.
- The mirror glass will engage with a click.

Then perform a function test.





## 2.4 Mirror Housing, Removing and Installing

⇒ [“2.4.1 Removing”, page 287](#)

⇒ [“2.4.2 Installing”, page 287](#)

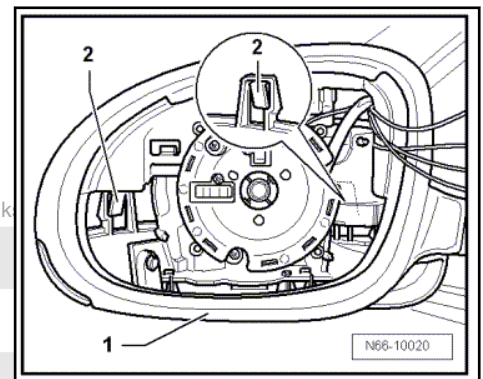


### Note

*The following describes removing and installing the left mirror housing. Removing and installing right mirror housing is derived accordingly from this.*

### 2.4.1 Removing

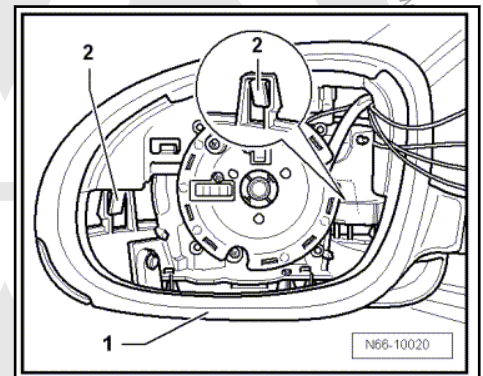
- Remove the mirror glass. Refer to ⇒ [“2.3.1 Removing”, page 286](#).
- Fold the exterior rearview mirror forward for easier installation.
- Press into the mirror housing using a screwdriver beneath the catches -2- out of locking mechanisms.
- Pull the mirror housing at the front slightly off the mirror base plate.
- Then, remove the mirror housing -1- from the mirror base plate.



### 2.4.2 Installing

- Position the mirror housing -1- on the mirror base plate and press down until the catches -2- engage audibly.
- Re-install the mirror glass. Refer to ⇒ [“2.3.2 Installing”, page 286](#).

Then perform a function test.



## 2.5 Trim, Removing and Installing

⇒ [“2.5.1 Removing”, page 287](#)

⇒ [“2.5.2 Installing”, page 288](#)



### Note

*Removing and installing is described only for the left trim. Removing and installing right trim is derived accordingly from this.*

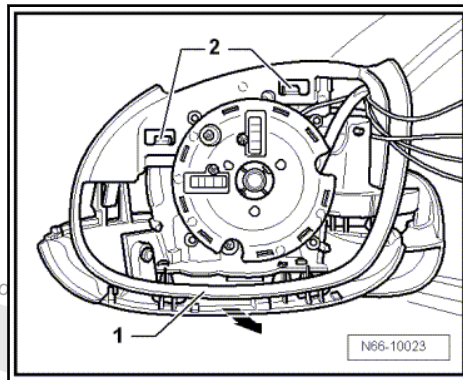
### 2.5.1 Removing

- Remove the mirror glass. Refer to ⇒ [“2.3.1 Removing”, page 286](#).





- Remove the mirror housing. Refer to ⇒ [“2.4 Mirror Housing, Removing and Installing”, page 287](#).
- Release the retaining tabs -2- from mirror carrier using a screwdriver.
- Remove the trim -1- in the -direction of the arrow-.



## 2.5.2 Installing

Install in reverse order of removal.

Then perform a function test.

## 2.6 Side Turn Signals, Removing and Installing

⇒ [“2.6.1 Removing”, page 288](#)

⇒ [“2.6.2 Installing”, page 288](#)

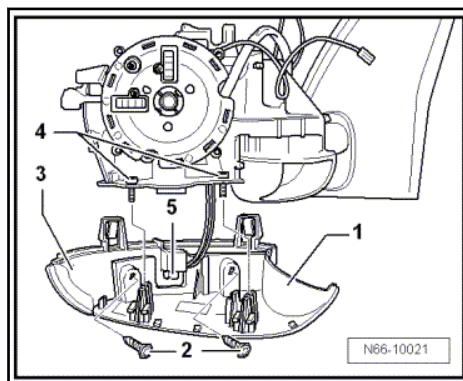


### Note

- ♦ Removing and installing is described only for the left side turn signals. Removing and installing right side turn signals is derived accordingly from this.
- ♦ LEDs with a long service life are installed in the side turn signals instead of standard bulbs.
- ♦ Because of that, it is not necessary to replace bulbs. If damaged, the entire turn signal must be replaced.

### 2.6.1 Removing

- Remove the mirror glass. Refer to ⇒ [“2.3 Mirror Glass, Removing and Installing”, page 286](#).
- Remove the mirror housing. Refer to ⇒ [“2.4 Mirror Housing, Removing and Installing”, page 287](#).
- Remove the trim. Refer to ⇒ [“2.5 Trim, Removing and Installing”, page 287](#).
- Remove the screws -4- and remove the assembly piece -1- downward.
- Disconnect the harness connector -5- from turn signal -3-.
- Remove the screws -2- and remove the turn signal -3- from the assembly piece -1-.



### 2.6.2 Installing

Install in reverse order of removal.

Then perform a function test.





## 2.7 Entry Lamp, Removing and Installing

⇒ [“2.7.1 Removing”, page 289](#)

⇒ [“2.7.2 Installing”, page 289](#)

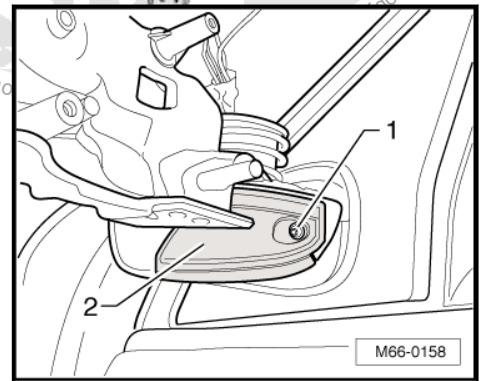


### Note

*Removal and installation are described only for the left ambient lamp. The removal and installation of the right ambient lamp are derived accordingly from this.*

### 2.7.1 Removing

- Remove the mirror glass. Refer to ⇒ [“2.3 Mirror Glass, Removing and Installing”, page 286](#).
- Remove the mirror housing. Refer to ⇒ [“2.4 Mirror Housing, Removing and Installing”, page 287](#).
- Remove the trim. Refer to ⇒ [“2.5 Trim, Removing and Installing”, page 287](#).
- Remove the assembly piece with the side turn signal. Refer to ⇒ [“2.6 Side Turn Signals, Removing and Installing”, page 288](#).
- Remove the bolt -1-.
- Swing the ambient light -2- downward and out and remove light bulb from the ambient light housing.



### 2.7.2 Installing

Install in reverse order of removal.

Ambient lighting bolt tightening specification: 1 Nm

Then perform a function test.

## 2.8 Adjusting Unit with Exterior Rearview Mirror Motor, Removing and Installing

⇒ [“2.8.1 Removing”, page 290](#)

⇒ [“2.8.2 Installing”, page 290](#)



### Note

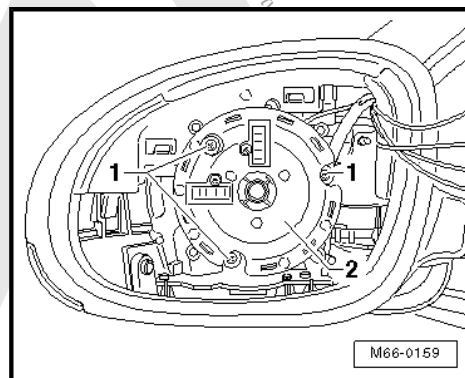
*The following describes the removal and installation of the left adjusting unit with motor. Removing and installing right adjusting unit with motor is derived accordingly from this.*





## 2.8.1 Removing

- Remove the mirror glass. Refer to ⇒ [“2.3 Mirror Glass, Removing and Installing”, page 286](#).
- Remove the screws -1-.
- Remove the adjusting unit with motor -2- and disconnect the harness connector.



## 2.8.2 Installing

Install in reverse order of removal.

Bolt tightening specifications for the adjusting unit with motor: 1 Nm

Then perform a function test.

## 2.9 Exterior Rearview Mirror, Removing and Installing

⇒ [“2.9.1 Removing”, page 290](#)

⇒ [“2.9.2 Installing”, page 291](#)

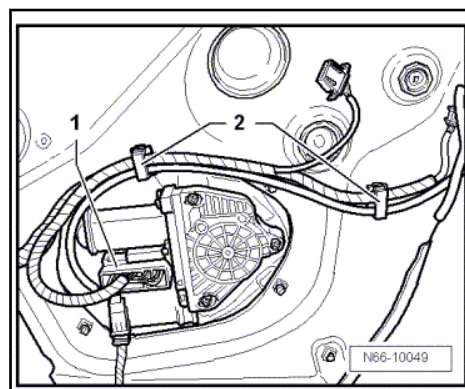


### Note

*The following describes the removal and installation of the left exterior rearview mirror. Removing and installing the right exterior rearview mirror is identical.*

### 2.9.1 Removing

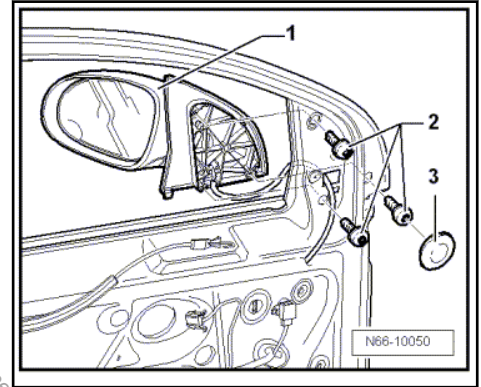
- Remove the front driver side door trim. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Door trim .
- Remove the cable bracket -2- and disconnect the connector -1- for the exterior rearview mirror.







- Pry the cover cap -3- out of door and remove bolts -2-.
- Remove the exterior rearview mirror -1- and guide wire through the opening in the door.

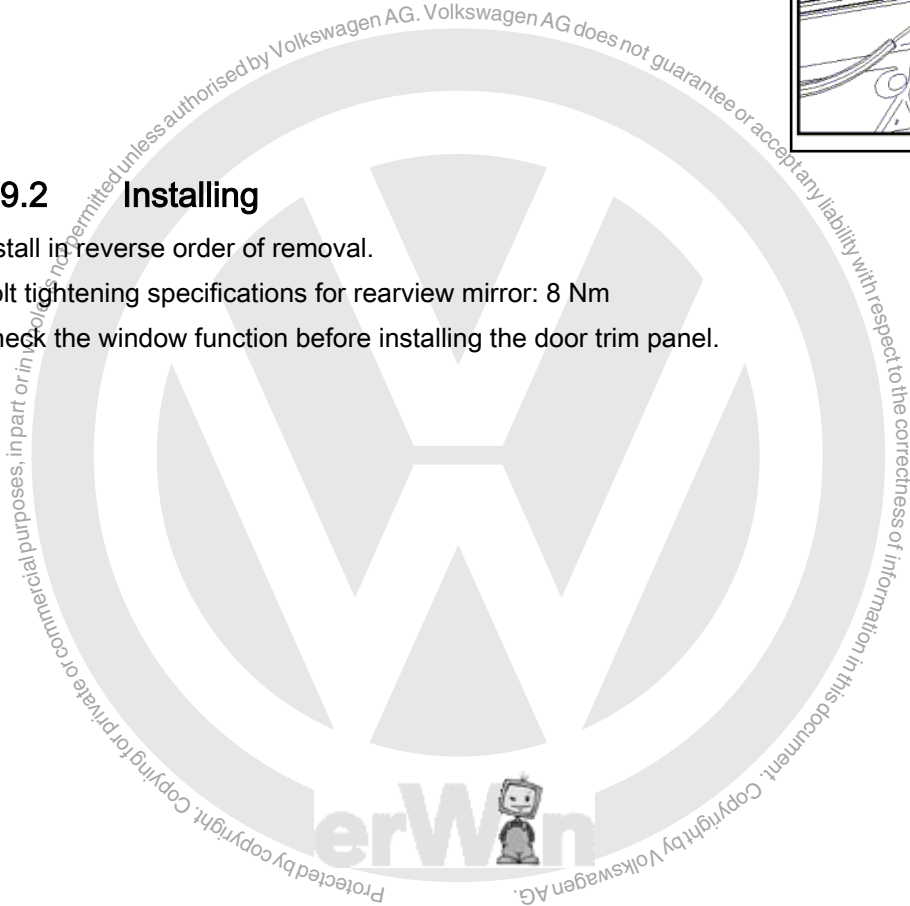


## 2.9.2 Installing

Install in reverse order of removal.

Bolt tightening specifications for rearview mirror: 8 Nm

Check the window function before installing the door trim panel.







### 3 Roof Railing

⇒ ["3.1 Tools", page 292](#)

⇒ ["3.2 Overview - Roof Railing", page 292](#)

⇒ ["3.3 Roof Railing, Removing and Installing", page 293](#)

#### 3.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench, 6-50Nm - VAG 1331A-

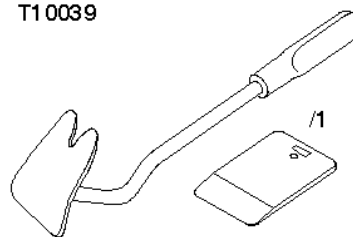
V.A.G 1331



W00-0427

- ◆ Trim Release Lever - Wedge - T10039/1-

T10039



W00-0973

#### 3.2 Overview - Roof Railing





## 1 - Roof Railing

- ❑ Removing and Installing. Refer to ⇒ [“3.3 Roof Railing, Removing and Installing”, page 293](#).

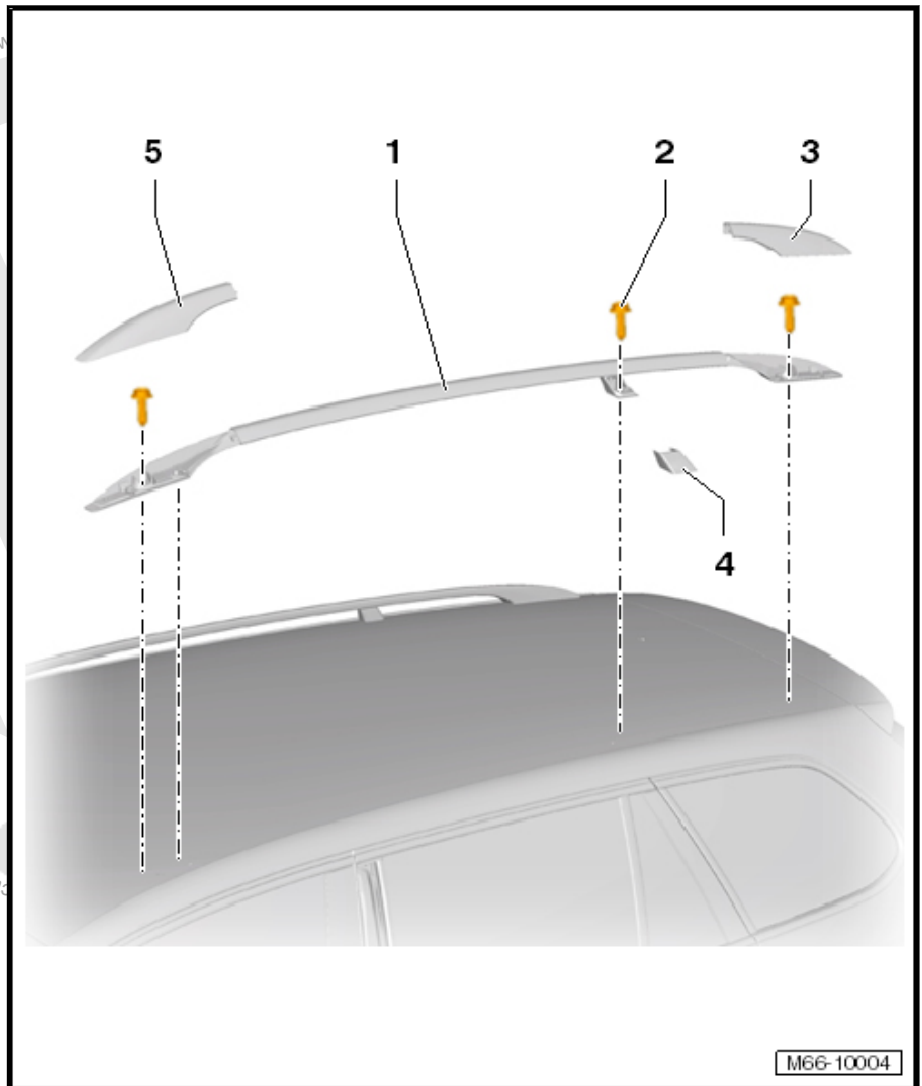
## 2 - Bolt

- ❑ Quantity: 3 on each side
- ❑ 20 Nm

## 3 - Rear Roof Rail Cover

## 4 - Center Roof Rail Cover

## 5 - Front Roof Rail Cover



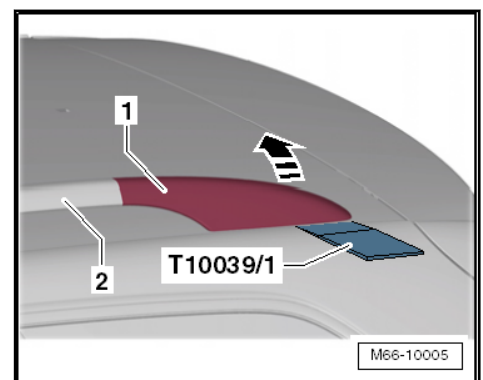
## 3.3 Roof Railing, Removing and Installing

⇒ [“3.3.1 Removing”, page 293](#)

⇒ [“3.3.2 Installing”, page 294](#)

### 3.3.1 Removing

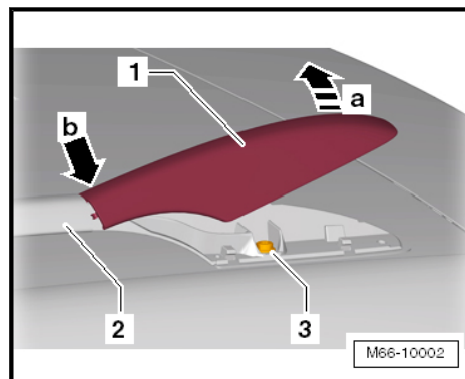
- Using the Trim Removal Wedge - T10039/1-, pry the front and rear roof rail cover -1- in the -direction of the arrow-.



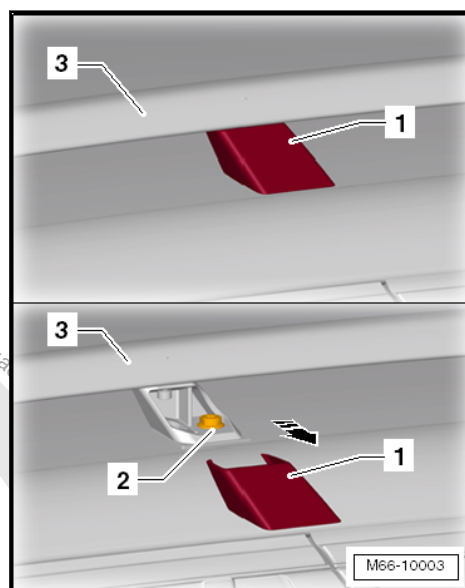




- Pry the front and rear roof rail cover -1- in the direction of -arrow A- and press it in the direction of -arrow B-.
- Remove the roof rail cover -1-.
- Remove the bolt -3- at the front and rear roof rail fastener -2-.



- Remove the center cover -1- from the roof rail -3- in the -direction of the arrow-.
- Remove the bolt -2- on the center roof rail fastener -3-.



### 3.3.2 Installing

Install in reverse order of removal.

Tightening specification: 20 Nm

Check for the roof rail cover for damage and replace if necessary.





## 4 Radiator Grille

⇒ ["4.1 Tools", page 295](#)

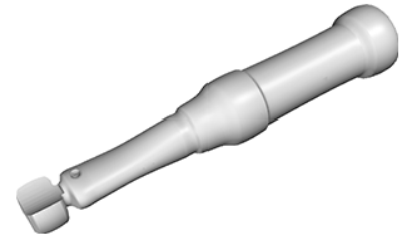
⇒ ["4.2 Radiator Grille, Removing and Installing", page 295](#)

### 4.1 Tools

Special tools and workshop equipment required

- ◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-

V.A.G 1783



W00-0990

### 4.2 Radiator Grille, Removing and Installing

⇒ ["4.2.1 Removing", page 295](#)

⇒ ["4.2.2 Installing", page 296](#)

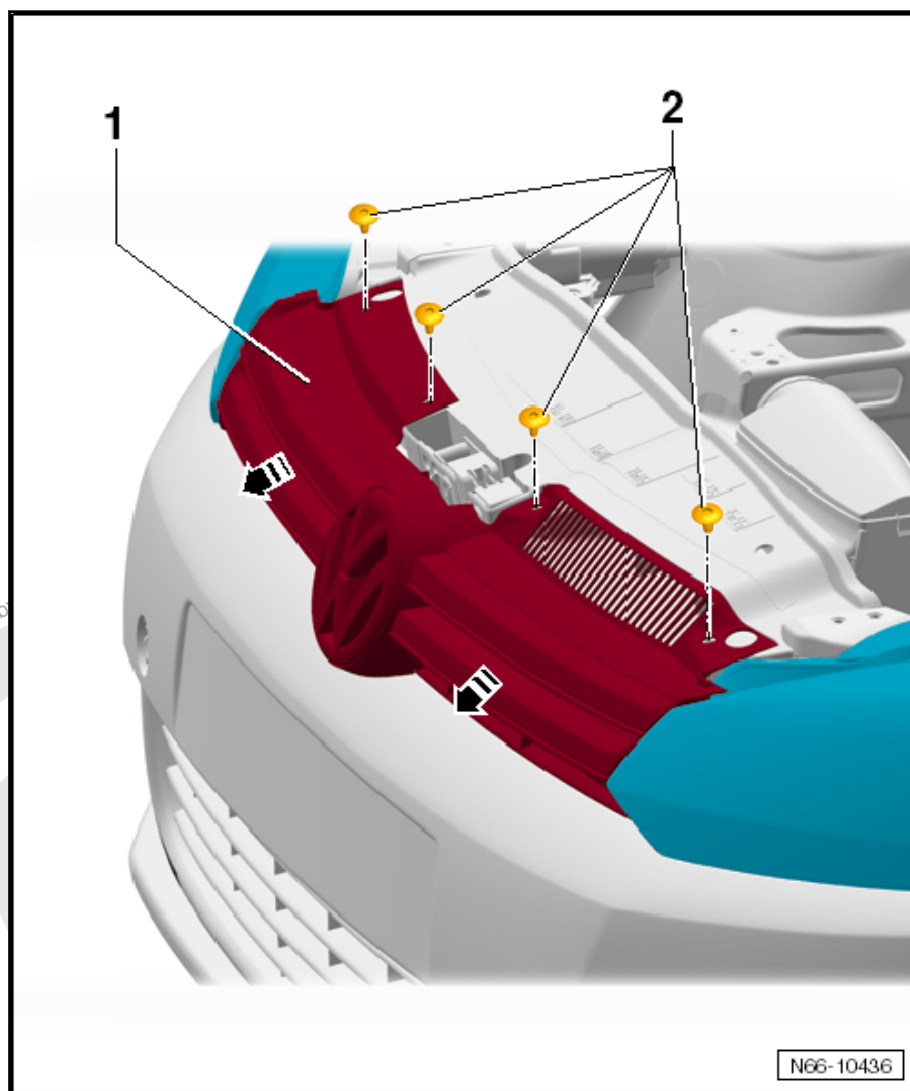
#### 4.2.1 Removing



Note

- ◆ *This description applies to all models.*
- ◆ *It may look different on different models.*

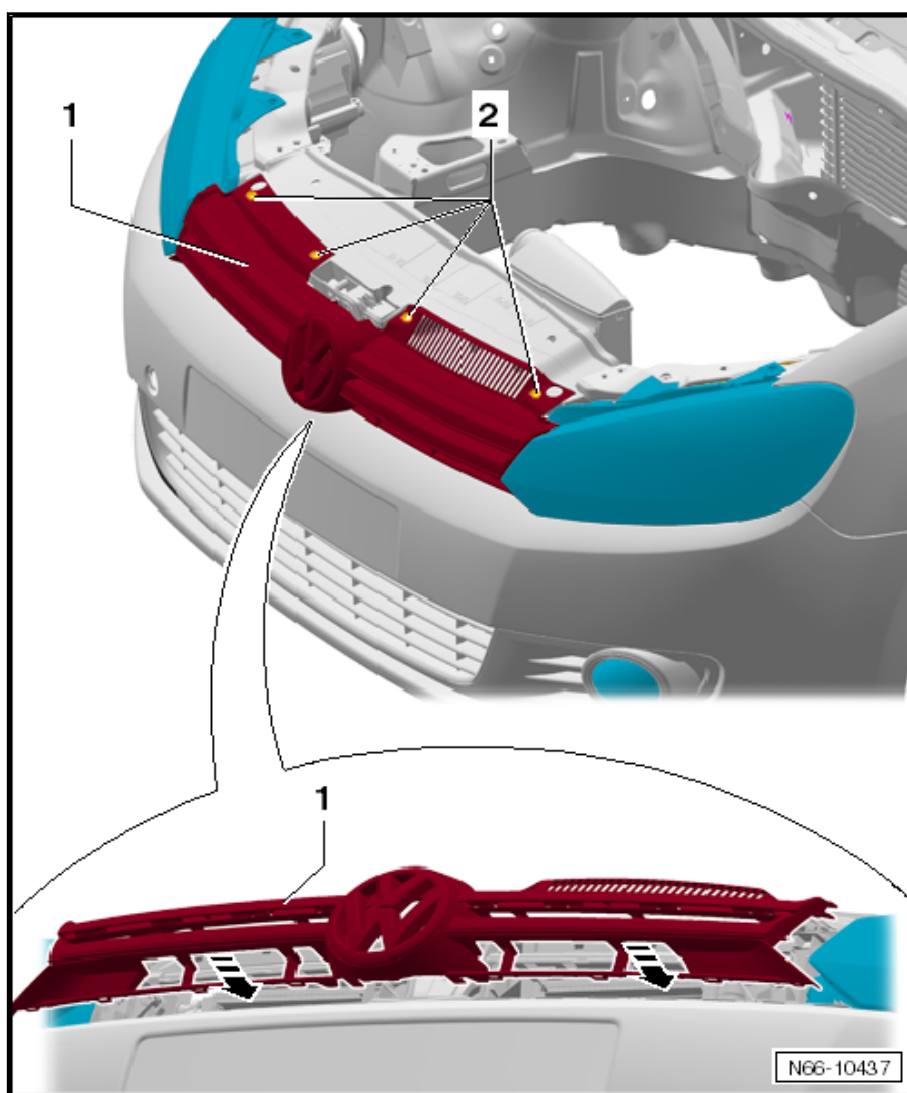




- Remove the screws -2-.
- Remove the radiator grille -1- from the front bumper cover in -direction of arrow-.

#### 4.2.2 Installing





- Install the radiator grille -1- into the front bumper cover.
- Using light pressure, engage the radiator -1- into the front bumper cover in -direction of arrow-.



**Note**

*Align the radiator grille -1- if necessary.*

- Install and tighten the screws -2- to 2 Nm.





## 5 Underbody Heat Shield

⇒ [“5.1 Overview - Front Underbody Heat Shield”, page 298](#)

⇒ [“5.2 Overview - Rear Underbody Heat Shield”, page 298](#)

⇒ [“5.3 Floor Heat Shield, Removing and Installing”, page 299](#)

⇒ [“5.4 Center Exhaust System Heat Shield, Removing and Installing”, page 300](#)

⇒ [“5.5 Rear Muffler Heat Shield, Removing and Installing”, page 300](#)

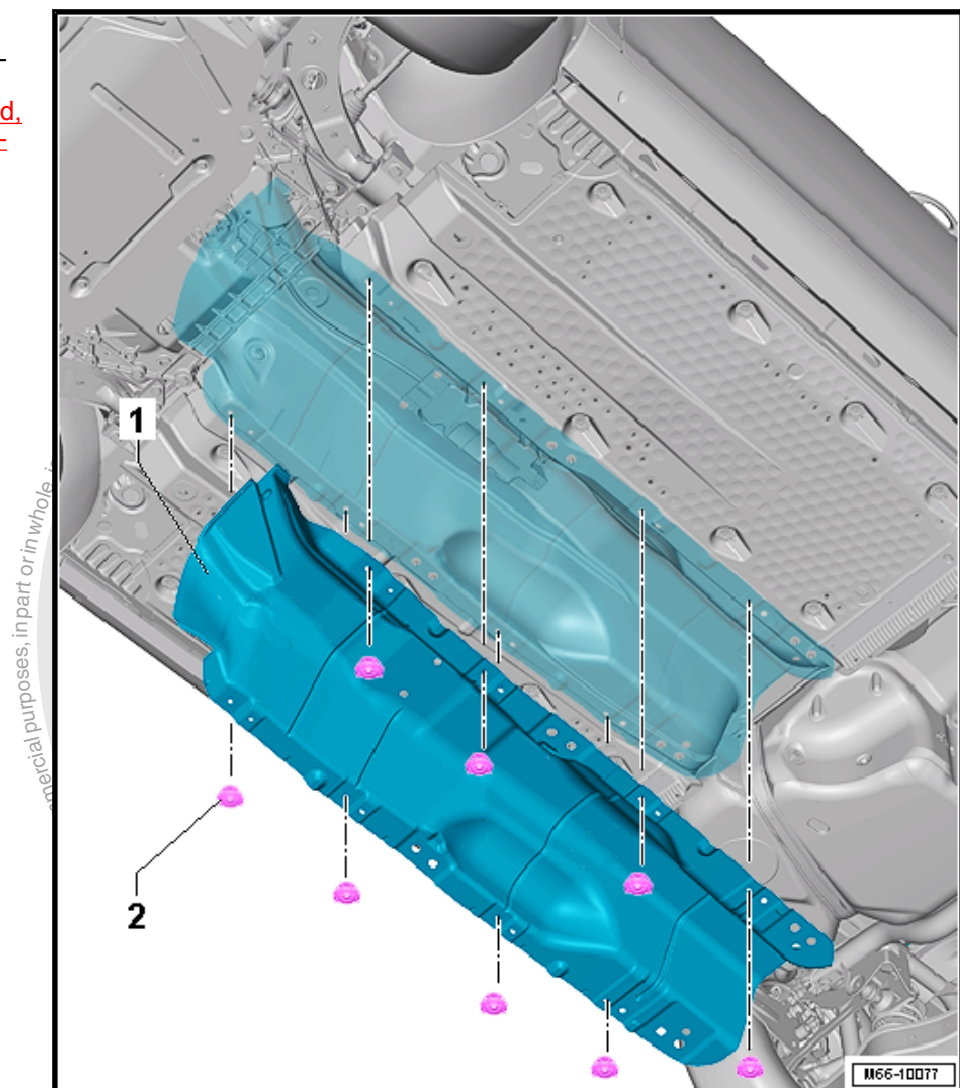
### 5.1 Overview - Front Underbody Heat Shield

#### 1 - Floor Heat Shield

- ❑ Removing and Installing. Refer to ⇒ [“5.3 Floor Heat Shield, Removing and Installing”, page 299](#).

#### 2 - Lock Washer

- ❑ Quantity: 8



### 5.2 Overview - Rear Underbody Heat Shield





### 1 - Center Exhaust System Heat Shield

- ❑ Removing and Installing. Refer to ➤  
["5.4 Center Exhaust System Heat Shield, Removing and Installing", page 300](#).

### 2 - Center Exhaust System Heat Shield

- ❑ Removing and Installing. Refer to ➤  
["5.4 Center Exhaust System Heat Shield, Removing and Installing", page 300](#).

### 3 - Rear Muffler Heat Shield

- ❑ Removing and Installing. Refer to ➤  
["5.5 Rear Muffler Heat Shield, Removing and Installing", page 300](#).

### 4 - Bolt

- ❑ 2 Nm

### 5 - Lock Washer

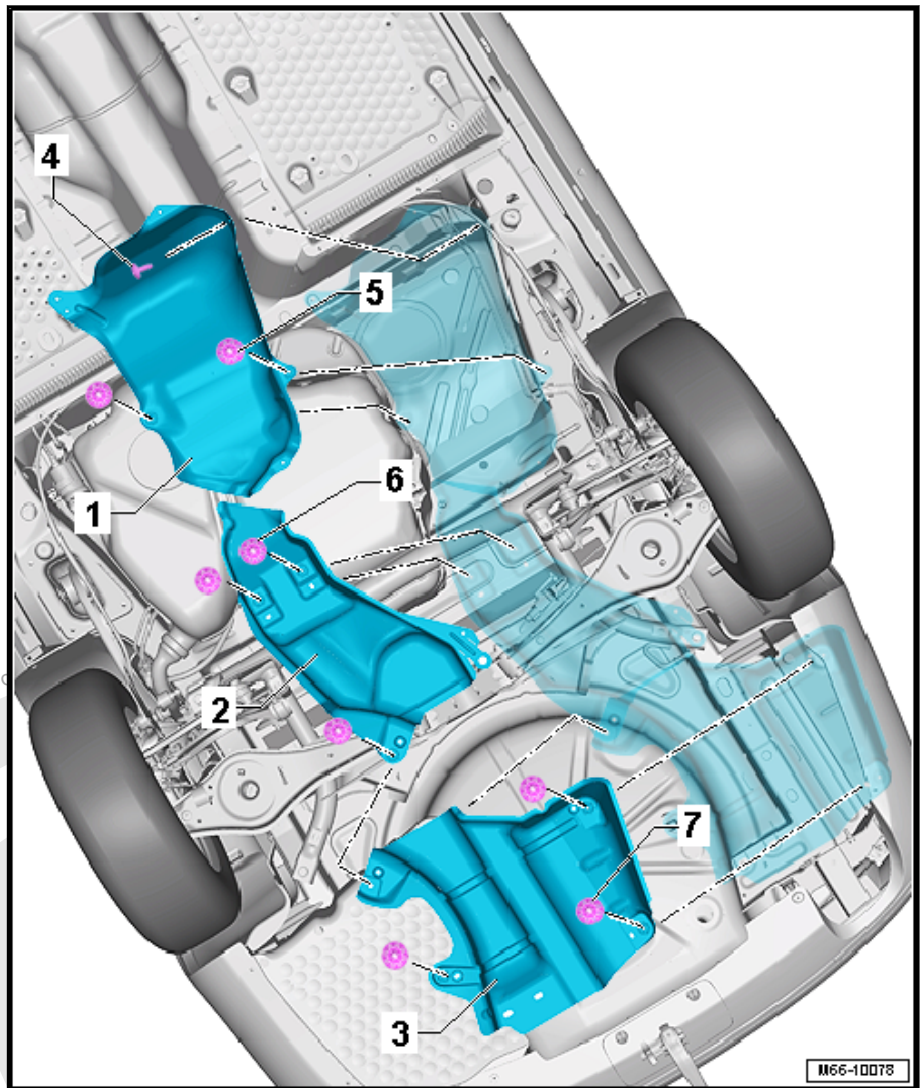
- ❑ Quantity: 2

### 6 - Lock Washer

- ❑ Quantity: 3

### 7 - Lock Washer

- ❑ Quantity: 3



## 5.3 Floor Heat Shield, Removing and Installing



### Note

*Depending on the engine version, slight deviations must be considered when removing and installing.*







## Removing

- Remove the left and right nuts -arrows- for the underbody panel.
- Remove the front and rear tunnel bridge. Refer to ⇒ [“8.2 Overview - Tunnel Brace”, page 28](#) .
- Remove the rear exhaust system. Refer to ⇒ Rep. Gr. 26 .

## AWD vehicles

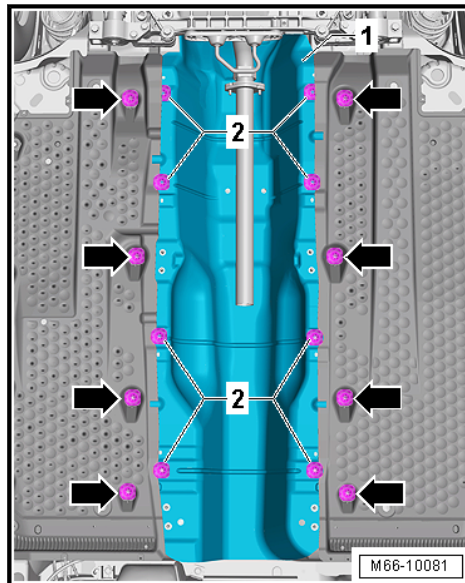
- Remove the driveshaft. Refer to ⇒ Rear Final Drive; Rep. Gr. 39 ; Driveshaft; Driveshaft, Removing and Installing .

## Continuation for all vehicles

- Remove the lock washers -2-.
- Lower the left and right underbody panels at the inner edges until the underbody heat shield -1- can be removed.
- Remove the underbody heat shield -1- toward the rear.

## Installing

Install in reverse order of removal.



## 5.4 Center Exhaust System Heat Shield, Removing and Installing



### Note

*Depending on the engine version, slight deviations must be considered when removing and installing.*

## Removing

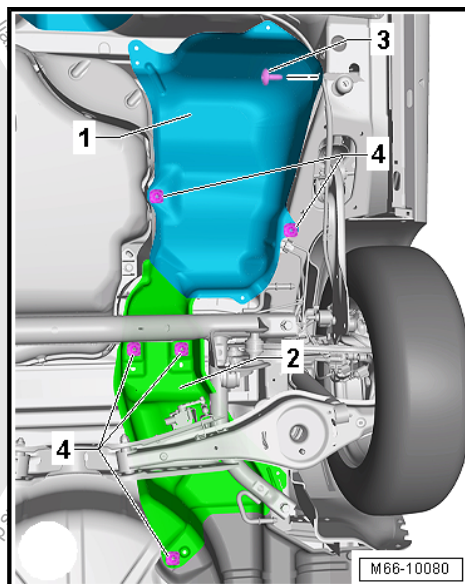
- Remove the rear exhaust system including the mountings in the area of the heat shield -1-. Refer to ⇒ Rep. Gr. 26 .
- Remove the bolt -3-.
- Remove the lock washers -4-.
- Remove the heat shields -1- and -2-.

## Installing

Install in reverse order of removal.

## Tightening Specifications

- ◆ Refer to ⇒ [“5.2 Overview - Rear Underbody Heat Shield”, page 298](#)



## 5.5 Rear Muffler Heat Shield, Removing and Installing

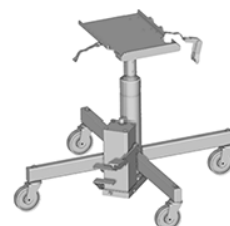
Special tools and workshop equipment required





◆ Engine and Gearbox Jack - VAS 6931-

**V.A.G 1383 A**



W00-0120



**Note**

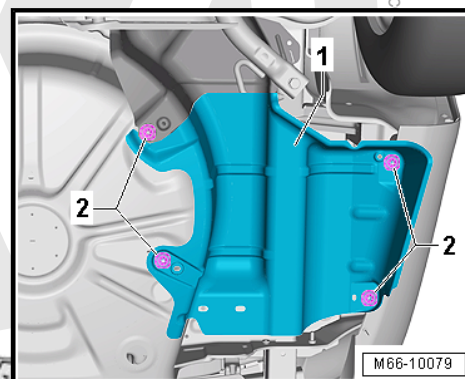
*Depending on the engine version, slight deviations must be considered when removing and installing.*

**Removing**

- Remove the mounting for the rear muffler and lower the rear muffler slightly using the Engine and Gearbox Jack - VAS 6931- . Refer to ⇒ Rep. Gr. 26 .
- Remove the lock washers -2-.
- Remove the rear muffler heat shield -1-.

**Installing**

Install in reverse order of removal.







## 6 Trim Moldings and Trim

⇒ [“6.1 Tools”, page 302](#)

⇒ [“6.2 Sill Panel Cover”, page 302](#)

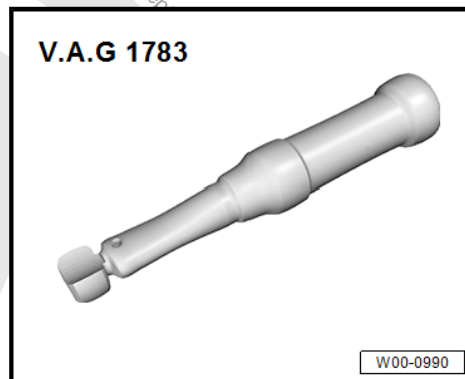
⇒ [“6.3 Stone Chip Protective Molding”, page 306](#)

⇒ [“6.4 Exclusive Cover Strip”, page 310](#)

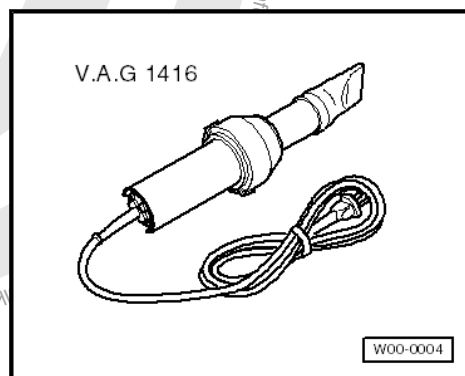
### 6.1 Tools

Special tools and workshop equipment required

◆ Torque Wrench 1783 - 2-10Nm - V.A.G 1783-



◆ Wiring Harness Repair Set - Hot Air Blower - VAS 1978/14A-



### 6.2 Sill Panel Cover

⇒ [“6.2.1 Overview”, page 302](#)

⇒ [“6.2.2 Removing”, page 303](#)

⇒ [“6.2.3 Installing”, page 304](#)



Note

*The following describes removing and installing the left sill panel cover only. Removing and installing right sill panel cover is identical.*

#### 6.2.1 Overview



Note

*The illustration shows the left side. The right side is identical.*





### 1 - Sill Panel Cover

- ☐ Removing. Refer to ➤  
“6.2.2 Removing”, page  
303 .
- ☐ Installing. Refer to ➤  
“6.2.3 Installing”, page  
304 .

### 2 - Bolt

- ☐ Quantity: 4
- ☐ Tightening specifica-  
tion: 2 Nm

### 3 - Expanding Nuts

- ☐ Quantity: 2

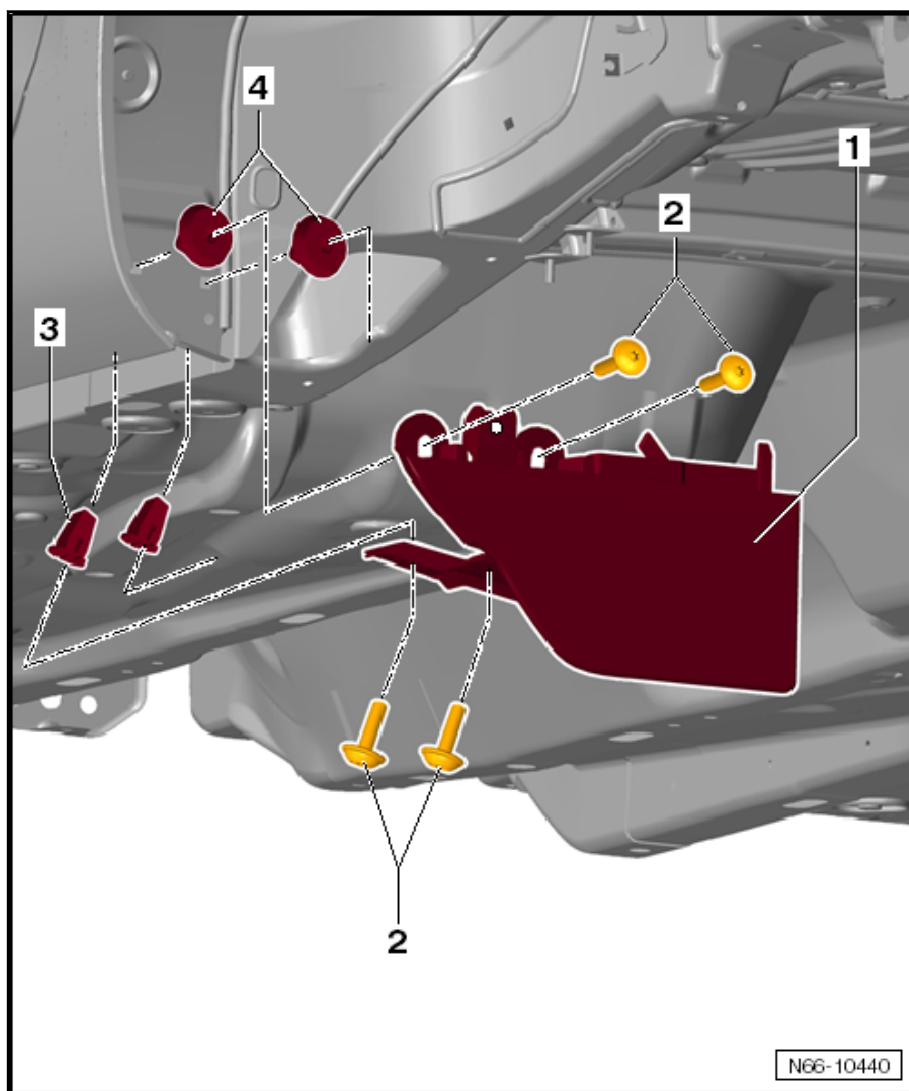
### 4 - Expanding Nuts

- ☐ Gas-tight
- ☐ Quantity: 2

**DAN-  
GER!**

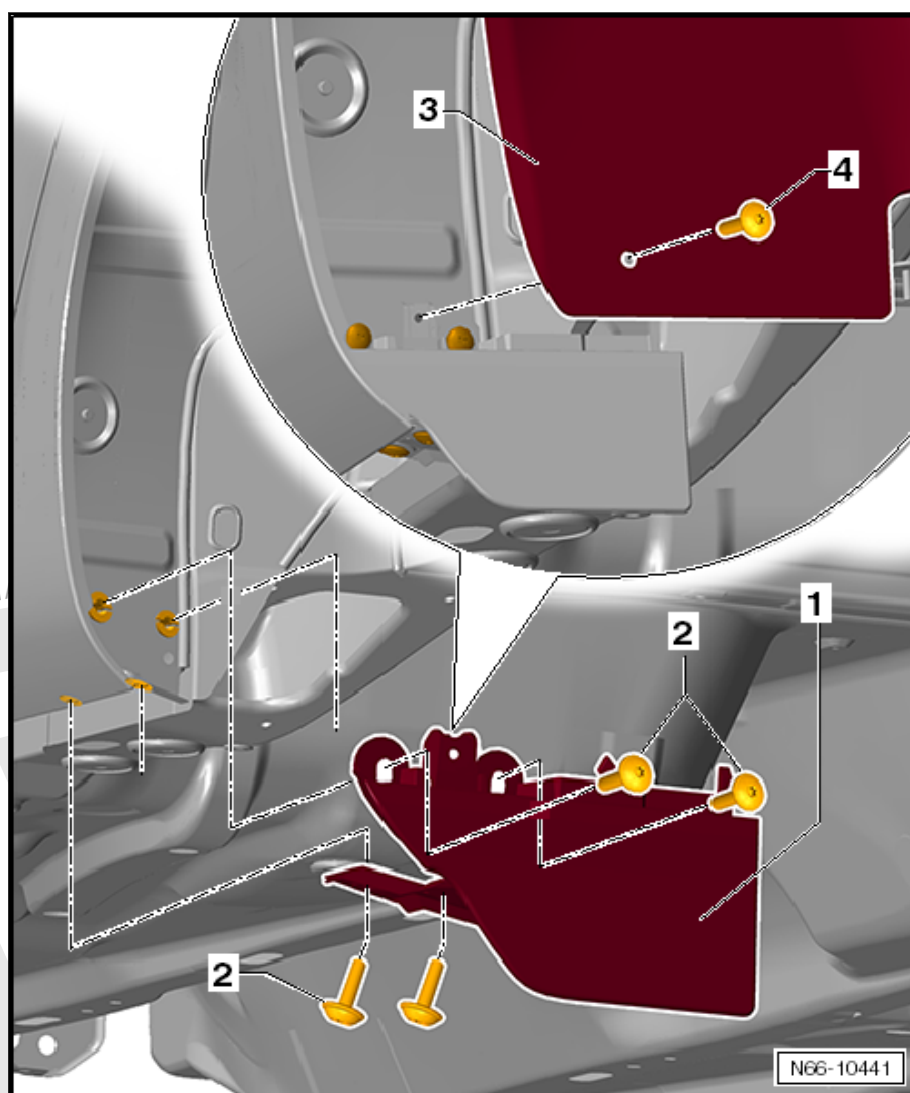
*Check the gas-tight ex-  
panding nuts for dam-  
age and replace if nec-  
essary.*

*The expanding nuts  
seal off the vehicle in-  
terior from exhaust gas  
and must always be re-  
placed if they are dam-  
aged.*



## 6.2.2 Removing

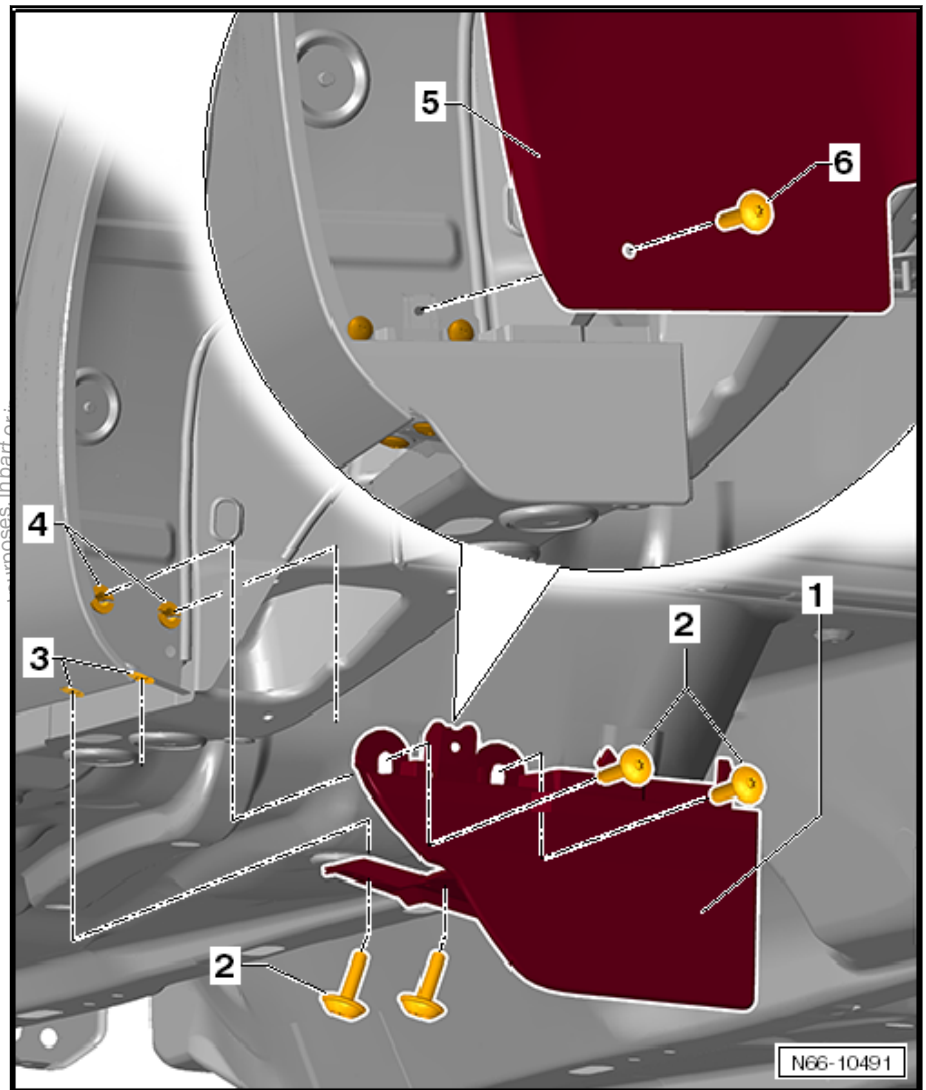




- Remove the screw -4- and move the rear wheel housing liner -3- to the side.
- Remove the screws -2-.
- Remove the sill panel cover -1-.

### 6.2.3 Installing





**Note**

Check the expanding nuts -3 and 4- for damage and replace if necessary ⇒ [Item 3 \(page 303\)](#).



**DANGER!**

Check the gas-tight expanding nuts -4- for damage and replace if necessary. ⇒ [Item 4 \(page 303\)](#)

The expanding nuts seal off the vehicle interior from exhaust gas and must always be replaced if they are damaged.

- Install the sill panel cover -1- and tighten the screws -2-.
- Position the wheel housing liner -5- and tighten the screw -6-.





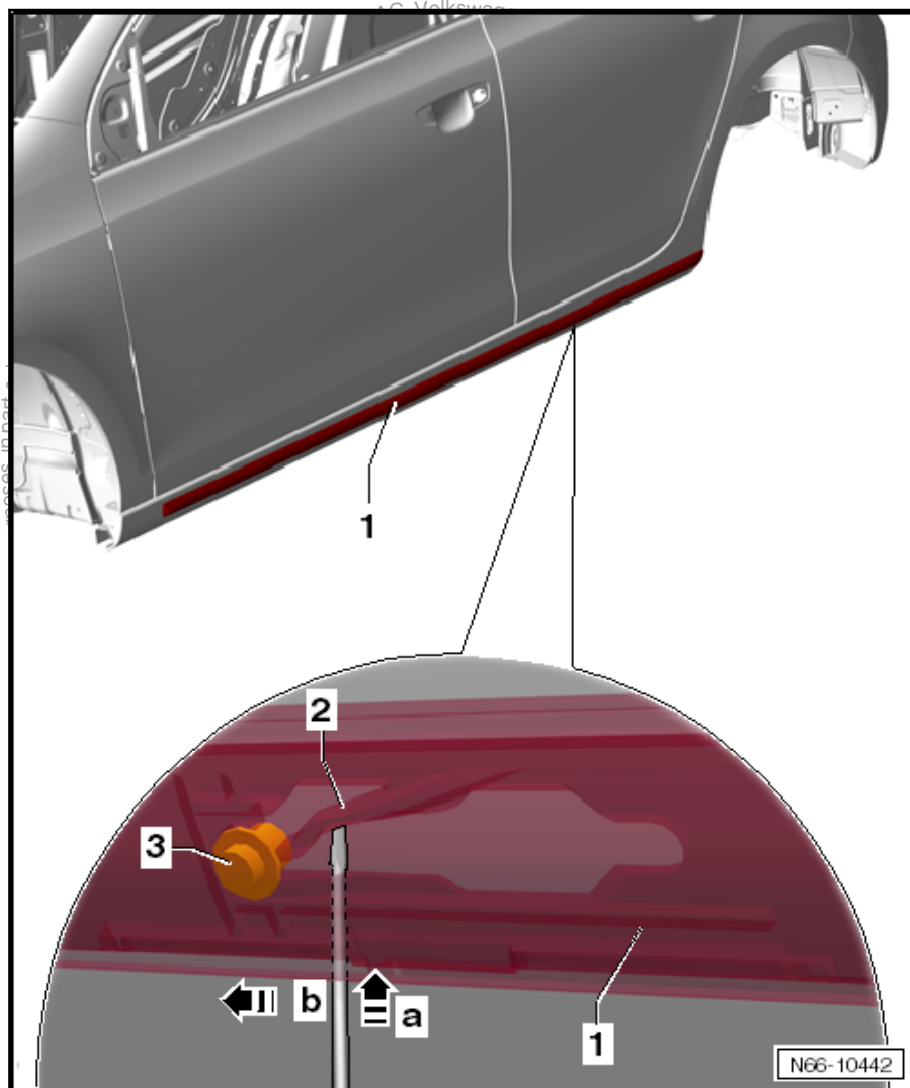
## 6.3 Stone Chip Protective Molding

⇒ [“6.3.1 Removing”, page 306](#)

⇒ [“6.3.2 Screw Dimensions”, page 307](#)

⇒ [“6.3.3 Installing”, page 308](#)

### 6.3.1 Removing



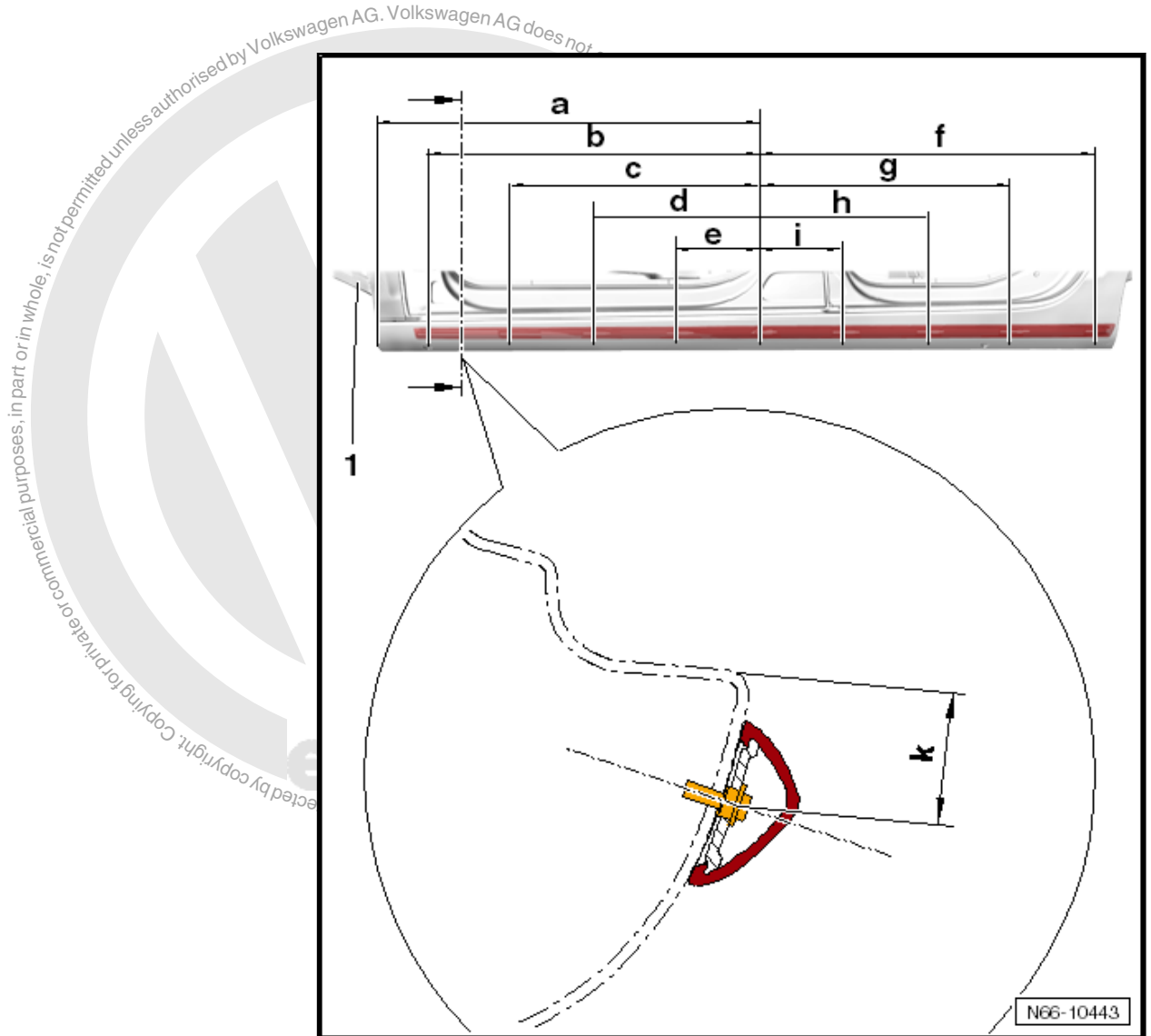
- Insert a small screwdriver through the opening in the stone chip protective molding -1- from underneath and open the catch -2- from the above -arrow a-.
- Slide stone chip protective molding -1- forward -arrow b- until screwdriver comes in contact with screw -3-. Then remove the screwdriver.
- Slide stone chip protective molding farther until it can be removed from all retaining screws.



## 6.3.2 Screw Dimensions

### Note

- ◆ *Stone chip protective molding screws are corrosion-resistant. Additional treatment is not necessary.*
- ◆ *If a screw is overtightened, it must always be replaced with a "black" oversized screw.*



- There are no holes for the screws present.
- Measure the holes according to the table.
- Punch the hose for the screws.
- Drill holes with a 1.5 mm bit.





#### Note

- ◆ *Dimension -a- is measured including the wheel housing liner -1-. Dimensions -b through i- are always measured from the center hole.*
- ◆ *Measurement -k- is made only on a 4-door vehicle.*
- ◆ *If the vehicle is a 2-door vehicle, then the measurement -k- must be aligned in height according to the front holes.*

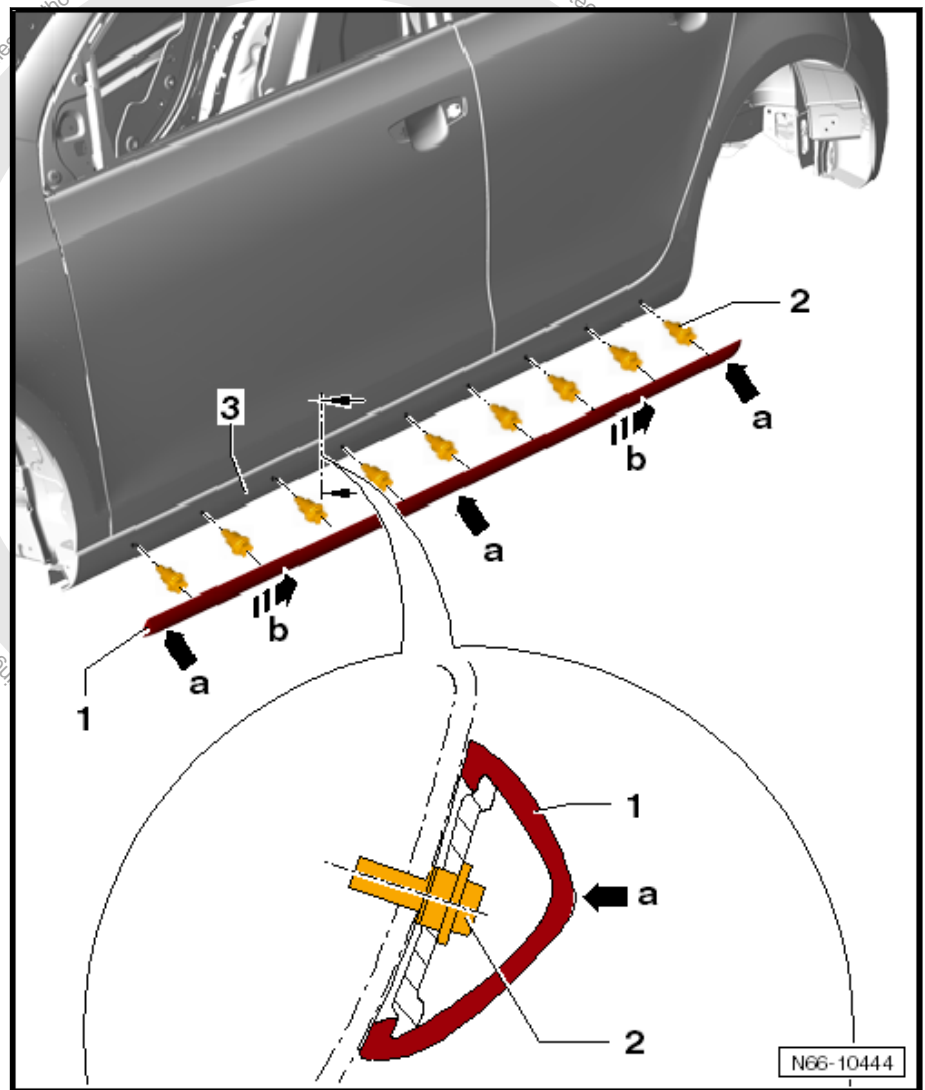
#### Dimensions table

Dimension -a-	= 855 mm
Dimension -b-	= 822 mm
Dimension -c-	= 617 mm
Dimension -d-	= 411 mm
Dimension -e-	= 205 mm
Dimension -f-	= 822 mm
Dimension -g-	= 617 mm
Dimension -h-	= 411 mm
Dimension -i-	= 205 mm
Dimension -k-	= 35 mm

### 6.3.3 Installing







- All screw holes are present.
- Install the self-tapping bolts -2- using the Cordless Drill - VAS 5036- with the highest RPM until the thread engages.
- Remove the Cordless Drill - VAS 5036- now.
- Tighten the bolt with lowest torque so that screw is not over-tightened.
- Position stone chip protective molding -1- evenly -arrow a- with openings on rear side over all screws -2- until molding comes in contact with side sills -3-.

Position stone chip protective molding -1- with a second mechanic so that all screws -2- remain in the openings when molding is slid on.

- Slide stone chip protective molding -1- forcefully opposite direction of travel -arrow b- to stop.





## 6.4 »Exclusive« Cover Strip

⇒ ["6.4.1 Cover Strip Installation Instructions", page 310](#)

⇒ ["6.4.2 Cover Strip, Removing and Installing", page 310](#)

### 6.4.1 Cover Strip Installation Instructions

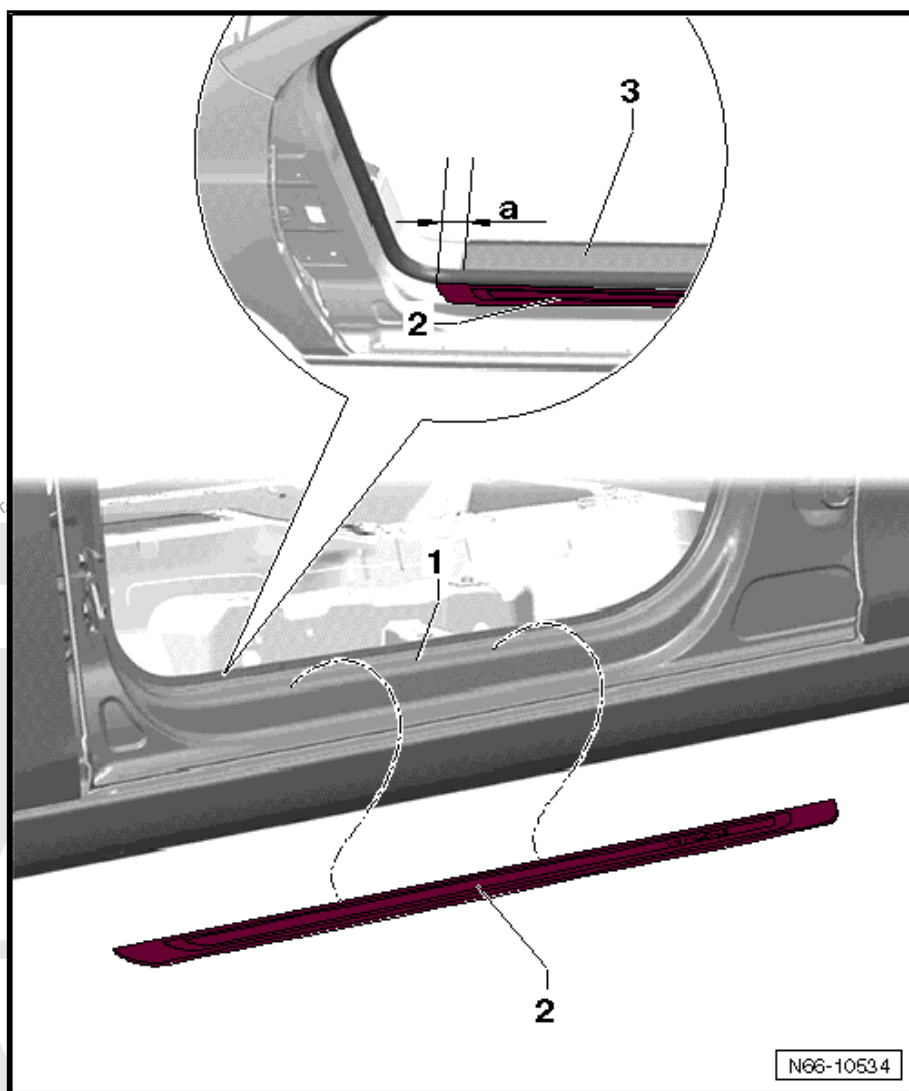


#### Note

- ◆ *Make sure the adhesive surfaces are free of dust and grease.*
- ◆ *If installing the cover strip for the first time on a commercial vehicle or a newly painted surface, follow the procedure described in ⇒ [Paint Repair Manual](#); ⇒ [Paint Repairs](#); ⇒ [Paint Finish](#); ⇒ [Decorative Molding and Films](#).*
- ◆ *When removing and installing the cover strip, only use the Adhesive Remover - D 002 000 10- to remove the adhesive residue.*
- ◆ *Apply the cover strip immediately after cleaning the surface that will be bonded.*
- ◆ *Warm the cover strip before removing using the Wiring Harness Repair Set - Hot Air Blower - VAS 1978/14A-.*
- ◆ *Peel off the protective film just before installing.*
- ◆ *The temperature is approximately 21 °C (69.8 °F).*
- ◆ *The cover strip cannot be removed without being damaged.*

### 6.4.2 Cover Strip, Removing and Installing





### Removing

Warm the front cover strip -2- using the Wiring Harness Repair Set - Hot Air Blower - VAS1978/14A- and then pull it off the sill panel -1-.

### Installing

- Clean the installation area with Adhesive Remover - D 002 00 10- .
- Remove the protective backing from the new cover strip -2-.
- Glue the cover strip -2- to the sill panel -1- according to -dimension a-.

### Dimension -a- = 28 mm

Distance from the cover strip -2- to the sill panel strip -3-.





## 7 Name Badges

⇒ [“7.1 Tools”, page 312](#)

⇒ [“7.2 Assembly Instructions for Name Badges and Emblems”, page 312](#)

⇒ [“7.3 Name Badge Dimensions on Fender, Golf Wagon Exclusive, MATCH”, page 312](#)

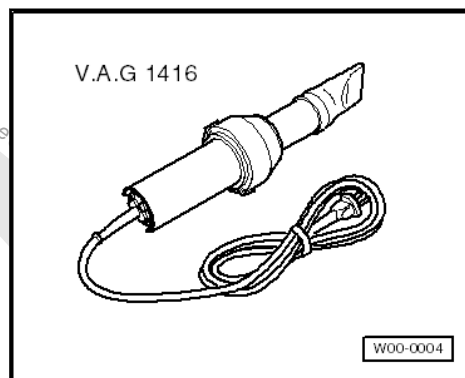
⇒ [“7.4 Rear Badging Dimensions, Golf Wagon”, page 313](#)

⇒ [“7.5 Badging Dimensions, Jetta Wagon”, page 314](#)

### 7.1 Tools

Special tools and workshop equipment required

- ◆ Wiring Harness Repair Set - Hot Air Blower - VAS 1978/14A-



### 7.2 Assembly Instructions for Name Badges and Emblems

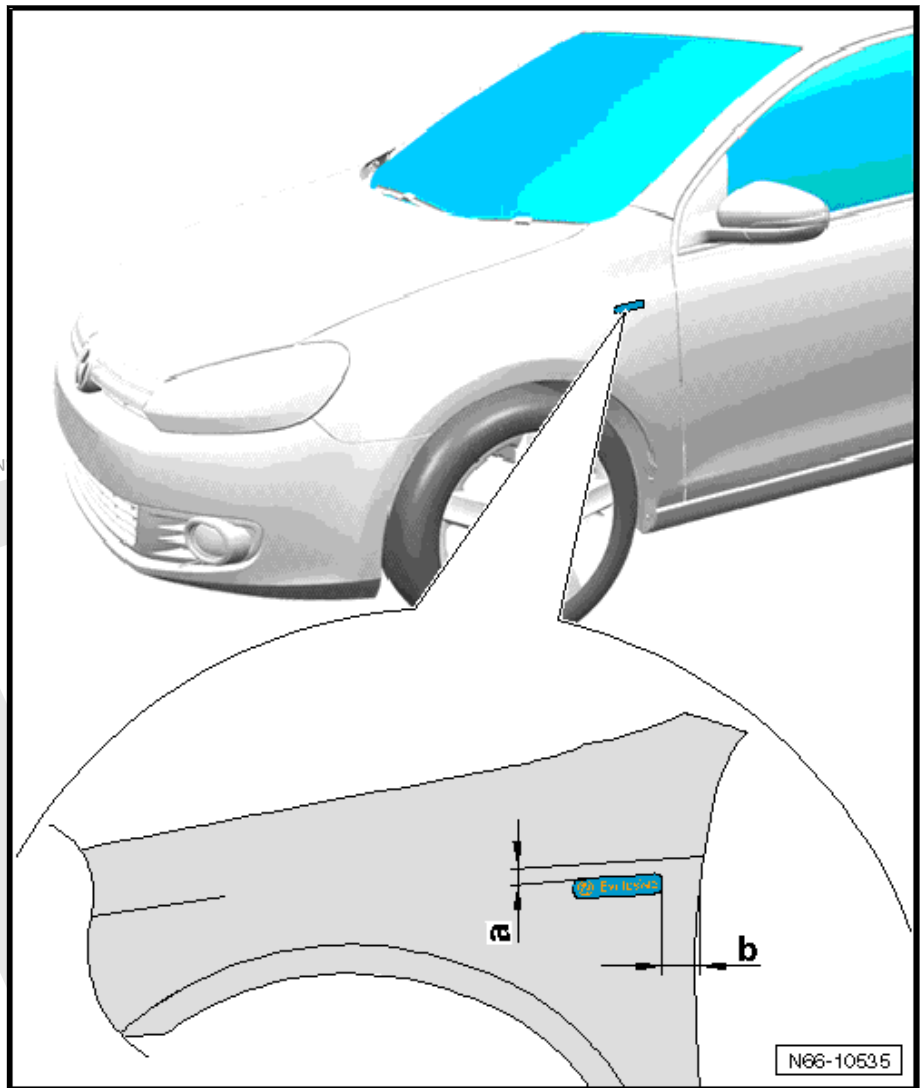


#### Note

- ◆ *Make sure the adhesive surfaces are free of dust and grease.*
- ◆ *If installing name badges or emblems for the first time on a commercial vehicle or on a newly painted surface, follow the procedure described in ⇒ Paint Repair Manual; ⇒Paint Repairs; ⇒Paint Finish; ⇒Decorative Molding and Films .*
- ◆ *If removing and installing name badge and emblems, only use the Adhesive Remover - D 002 000 10- to remove the adhesive residue.*
- ◆ *The name badges and brand emblems must be glued on immediately after cleaning the surface.*
- ◆ *Warm the name badges and emblems before removing using a Wiring Harness Repair Set - Hot Air Blower - VAS1978/14A- .*
- ◆ *Peel off the protective film just before installing.*
- ◆ *The temperature is approximately 21 °C (69.8 °F).*
- ◆ *It is not possible to remove the name badges and brand emblems without damaging them.*

### 7.3 Name Badge Dimensions on Fender, Golf Wagon “Exclusive”, “MATCH”





Dimension -a-: Distance from fender edge to the name badge

- ◆ Name badge "Exclusive": 20 mm
- ◆ Name badge "MATCH": 40 mm

Dimension -b-: Distance from outer edge of fender to the name badge

- ◆ Name badge "Exclusive": 35 mm
- ◆ Name badge "MATCH": 42 mm

## 7.4 Rear Badging Dimensions, Golf Wagon





**Dimension -a- = 5 mm**

Lower edge of the badge at the same height as the lower edge of the turn signal in the tail lamp assembly -1-.

**Dimension -b- = 8 mm**

Distance from the lower edge of the badge to the emblem, if installed.

## 7.5 Badging Dimensions, Jetta Wagon





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# Cautions & Warnings

**Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.**

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Volkswagen retailer or other qualified shop. We especially urge you to consult an authorized Volkswagen retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Volkswagen.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Volkswagen is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Volkswagen retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the Volkswagen Factory Approved Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.



# Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.



## Cautions & Warnings

- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the Volkswagen Factory Approved Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

**I have read and I understand these Cautions and Warnings.**

